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ABSTRACT

Connecticut's Education Enhancement Act provides for a network of support and assessment programs that represent a comprehensive effort to attract and retain highly qualified teachers. The CONNCEPT program is regarded as the foundation piece of the Enhancement Act. The centerpiece of this program is the Connecticut Competency Examination For Prospective Teachers (CONNCEPT). This report documents the transformation that has taken place in Connecticut as a result of the CONNCEPT program, and it identifies critical needs and policy implications. The report includes data on the overall performance of CONNCEPT examinees over the four years of the program; performance on individual subtests over the same period; and performance by certain key indicators, e.g., reported SAT scores, ethnic status, age, gender, and institutional affiliation of examinees. The report confirms the effectiveness of CONNCEPT in significantly increasing the level of skills of individuals seeking Connecticut certification without jeopardizing teacher supply. Low minority representation indicates that much needs to be done in the areas of preparation, remediation, and recruitment. Data is displayed in 29 tables. (JD)

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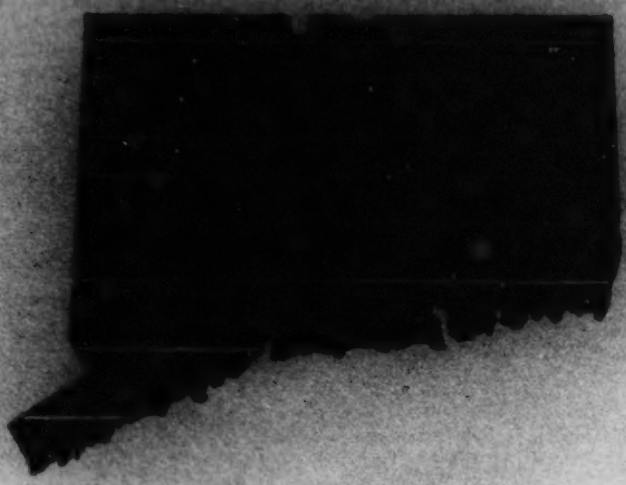

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THE CONNCEPT PROGRAM: A FOUR-YEAR REPORT

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The purpose of this report is to provide a four-year summary of examinee performance on the Connecticut Competency Examination for Prospective Teachers (CONNCEPT) from the first administration of the examination in October 1985 through the March 1989 administration, covering a total of 12 exam administrations. In addition, the report identifies directions the program has taken over the four-year period as well as major policy implications of the program.

The following questions will be addressed by this report:

1. How did overall performance change over the four years of the program?

2. How did performance on specific subtest domains change?

3. How has the CONNCEPT impacted Connecticut teacher education programs?

4. How have certification candidates been affected by the policy requiring that examinees pass all subtests in the same administration?

5. How has the CONNCEPT requirement affected examinees who failed CONNCEPT and chose not to retake it?

Reading, writing and mathematics are commonly regarded as the foundation of teaching and learning. Accordingly, in 1986, the Connecticut General Assembly sought to ensure that Connecticut teachers master the essential skills of reading, writing and mathematics before entering Connecticut public school classrooms by mandating the development and implementation of a state assessment requirement in those areas for all Connecticut certification candidates. After four years of implementation, this requirement, called the Connecticut Competency Examination For Prospective Teachers (CONNCEPT), has resulted in an increased number of better-qualified Connecticut teacher candidates and has effectively screened out candidates with inadequate mastery of the essential skills without jeopardizing the teacher supply in Connecticut.

The CONNCEPT requirement is the first of a three-tiered teacher assessment program in Connecticut. CONNTENT and BEST represent the remaining two components of the assessment program. CONNTENT comprises 23 subject-area assessments for candidates seeking certification in specific subject areas while BEST is a clinical assessment required of all first-year Connecticut teachers.

To date, of the three assessments, the CONNCEPT has had the most longstanding and broadest impact on certification candidates. Not only has the CONNCEPT been in place for four years, but virtually all prospective certification candidates (college students seeking admittance to Connecticut teacher education programs and all other certification candidates not holding valid certificates) must meet the requirement.

The CONNCEPT requirement may be met in one of two ways:

1. Taking and passing the State reading, writing and mathematics examination--The Connecticut Competency Examination for Prospective Teachers (CONNCEPT) in one administration, OR

2. Meeting one of three waiver eligibility requirements by achieving the required scores on the Scholastic Aptitude Test (SAT), the American College Testing Program (ACT) assessment or the Prueba de Aptitud Academica (PAA).

The impact of the CONNCEPT requirement may be viewed from four perspectives:

1. Its impact on all candidates, regardless of their purpose for taking the examination (Refer to Section II, Section III, Special Analyses 1, 4 and 5);

2. Its impact on teacher education program candidates (Refer to Section III, Special Analyses 2 and 3);

3. Candidates' performance in relation to certain key indicators (Refer to Section II and Section III, Special Analysis 2); that is, first-time pass rate, eventual pass rate, CONNCEPT waivers, and self-reported SAT scores of CONNCEPT examinees (candidates ineligible for waivers); and

4. Its effect on minority candidates because minority public school teachers comprised only 5.9% of the state's teaching force in 1988-89 while minority public school students comprised 23.0% of the State's total student population in the same year. (This issue is addressed throughout the report but particularly in Section III, Special Analysis 3.)

Impact of the CONNCEPT Requirement on all Candidates

Growth of the Program. A total of 12,233 (TABLE 1, page 6) candidates sought to fulfill the CONNCEPT requirement from its inception in October 1985 through March 1989, the endpoint of this report. The number of program candidates increased consistently over this period, with the greatest increase taking place in 1987-88, the first year in which the full mandate went into effect for all candidates--students and non-students. In that year, the number of CONNCEPT requirement candidates (4,254) increased by more than 200% over the previous year (1,375) and 60% over the previous two years combined (2,620). The pattern in growth noted thus far indicates that CONNCEPT candidates will level off at 5,000 to 6,000 per year.

Much of the increase in candidates is attributable to a significant increase in the demand for CONNCEPT waivers. For example, in 1987-88, the year noted for the greatest growth, CONNCEPT examinees increased by 120% (2,550 vs 1,127) over the previous year, but CONNCEPT waiver recipients increased by 580% (1,704 vs 248). The increasing number of waivers suggests Connecticut has been successful in its efforts to attract more skilled individuals to teaching. These data clearly show that the Connecticut approach to upgrading the profession through raising salaries and raising standards is working. Moreover, the increase in waivers signals that Connecticut should maintain, compared to other states, a sufficient supply of capable teachers to meet demand in the next five years.

Candidates Passing the CONNCEPT. Performance on the examination itself has improved substantially and consistently since 1985. Pass rate performance of examinees taking the examination for the first time improved steadily from 55% passing in 1985-86, to 61% in 1986-87, to 67% in 1987-88 and to 69% in

1988-89, the most recent year examined (TABLE 6, page 13). Of the 2,696 candidates failing the CONNCEPT on the first attempt over the four-year period, 62% retook the examination. Retakers passing the examination bring the overall pass rate to 80%; that is, from October 1985 through March 1989, a total of 80% of all candidates taking the examination passed (TABLE 3, page 9). Overall, these data show that the CONNCEPT is performing the job it was designed to address; that is, screening out candidates who do not possess minimal competence in the areas of reading, writing and mathematics.

In addition to examining performance based on first-attempts and subsequent retakes, the Connecticut State Department of Education (CSDE) attempted to target more clearly the probable eventual impact of the CONNCEPT requirement on the supply of teachers for Connecticut; that is, what percentage of the total pool of candidates would eventually be denied certification based on the CONNCEPT requirement? CSDE's projections indicate that approximately 13% of all certification candidates are likely to fail in this category (TABLE 4, page 10). In effect, the CONNCEPT requirement will not have a severe negative impact on the supply of teachers for Connecticut; it is resulting in an increased number of more capable candidates. In addition, this projected eventual impact rate, together with the four-year overall pass rate of 80%, clearly indicate that remediation and persistence do pay off.

Performance on Individual Subtests. In order to pass CONNCEPT, examinees must pass each component of the test in a single administration. Traditionally, the most difficult component to pass and the subtest contributing most to failure of the examination has been the writing subtest. This subtest, which requires examinees to produce a writing sample in response to a given topic, has consistently recorded the lowest pass rates (TABLE 7, page 14). Performance over the four-year period suggests that this pattern is beginning to change. Pass rates on the writing subtest began to show improvement in 1987-88 when examinees passed the writing subtest at a rate of 7% better than the previous year (from 71.0% to 76.9%). Improvement continued into 1988-89 when pass rates on this subtest improved an additional two percentage points (TABLE 7, page 14).

By contrast to the writing subtest, the reading subtest has consistently been the least difficult subtest to pass. This subtest has recorded the highest pass rate for each of the four years of the program, with pass rates greater than 90% for all except one year of the program (TABLE 7, page 14). Finally, the mathematics subtest recorded relatively stable pass rates over the four-year period with a pass rate of approximately 82% for three of the four years (TABLE 7, page 14).

Factors contributing most to improved performance in the two most difficult subtests--writing and mathematics--were further examined. Analyses of writing performance suggest that examinees were experiencing fewer

difficulties with staying on topic and addressing all parts of the assigned exercise. In addition, examinees were providing greater elaboration in writing samples. However, examinees who fail the writing subtest still appear to be severely deficient in the use of correct grammar, spelling, punctuation and other areas of writing mechanics (TABLES 10 and 12, pages 23 and 25).

Analyses of performance on the mathematics subtest indicated the greatest improvement in performance in the following areas: Application of Mathematical Understandings, Measurement Relationships and Deductive Reasoning. Nevertheless, the greatest area of difficulty for examinees remained in the area of Deductive Reasoning (TABLES 13, 14, 15, pages 27 through 31).

Policy Requiring Passing Scores On All Subtests in the Same Administration. The policy underlying the statute requiring CONNCEPT examinees to take and pass all CONNCEPT subtests in a single administration has been closely monitored by CSDE since the inception of the program. Department studies indicate that this policy affects a very small number of examinees overall and an even smaller number of minority examinees. Of the 7,769 examinees taking the CONNCEPT through March 1989, 1.3% (99) passed all subtests in different administrations (TABLE 25, page 53). These examinees represent 0.8% of the entire pool of CONNCEPT requirement candidates (waiver recipients and CONNCEPT examinees).

Examinees passing all subtests in different administrations also represented small proportions in their respective ethnic subgroups. Of the number passing all subtests in different administrations, 7.1% (7 of the 99) were Black and 4.0% (4 of the 99) were Hispanic. The vast majority (85.9%) were White (TABLE 26, page 54). No ethnic status data were available on the remaining 3.0% of the affected examinees.

In effect, this suggests that if the current policy were adjusted to allow passing scores on the subtests from different administrations, the increase in the pass rate would not be significant. In total, an additional 99 individuals (1.3%) would pass CONNCEPT; approximately 2.2% for Black examinees (from 164 to 173), 1.9% for Hispanic examinees (from 94 to 98) and 1.2% for White examinees (from 5,866 to 5,951). Clearly, these data support the current policy and confirm that the CONNCEPT is successfully screening out those individuals with inadequate command of the essential skills.

Examinees Failing to Retake the CONNCEPT. Approximately 1,600 examinees did not retake the CONNCEPT on the last two occasions accorded them. The Department conducted a survey of these individuals to sample their opinions of the CONNCEPT requirement and to secure another perspective of the program. Responses from individual respondents who did not retake the examination after the first attempt were particularly striking (TABLES 27, 28, 29, pages 57 through 60).

Of the 167 respondents who did not retake the examination after the first attempt, almost 40% indicated that they still intended to become Connecticut public school teachers. However, more than 15% indicated that they had changed to a career unrelated to education as a result of CONNCEPT and approximately 34% said they would not retake the CONNCEPT. When asked how they would describe the CONNCEPT, approximately one-half said the writing subtest, the most difficult of the subtests, was fair and more than two-thirds said the writing subtest was important. Slightly less than one-half said the mathematics subtest was fair and almost two-thirds said it was important. Almost three-quarters said the reading subtest was fair and and more than three-quarters said it was important (TABLE 29, page 59). It is encouraging to note that even those respondents most likely to be disillusioned were relatively positive about the examination.

Impact of the CONNCEPT on Connecticut Teacher Education Programs

Connecticut teacher education programs were the first to be affected by the essential skills mandate. For those programs, the CONNCEPT requirement went into effect in June of 1986, approximately one year before it became effective for virtually all certification candidates. The examination is compulsory for admittance to all Connecticut teacher education programs.

Not surprisingly, our studies indicate that Connecticut teacher education program candidates represented more than two-thirds of all CONNCEPT examinees over the four-year period and that the vast majority of these candidates attended one of the state universities. These data confirm the importance of Connecticut universities as the primary source of teachers for Connecticut.

Our examination of the characteristics of teacher education program candidates and their performance over the duration of the CONNCEPT brought some unexpected results. Connecticut attracted an increasing number of older teacher education program candidates (30 years and older) over the four years, as well as an increasing number of graduate students seeking entry into teacher education programs (TABLE 18, page 37). Of all teacher education program examinees, approximately 40% were age 30 or above in the most recent program year, compared with 10% in the first year of the program. Approximately one-quarter were graduate students in the most recent year, compared with fewer than 10% in the first year.

The pass rates of the teacher education program pool consistently improved over the four years. While slightly more than half of all student examinees passed the CONNCEPT in the first year of the program, approximately two-thirds passed in the fourth year (TABLE 19, page 40). Finally, as expected, older

examinees tended to perform better than their younger counterparts, and performance improved with educational level; that is, graduate students performed better than seniors who in turn performed better than juniors (TABLE 19, page 40).

Candidate Performance in Relation to Additional Key Indicators

The increased number of CONNCEPT waiver recipients and the increasing SAT scores reported by examinees ineligible for CONNCEPT waivers are two additional indications that Connecticut is attracting more capable candidates. Over the four years of the program, more examinees reported SAT scores between the 100-point interval of 900 and 999 than any other 100-point interval. This outcome compares favorably with self-reported SAT scores after the first two years of the program when more candidates reported SAT scores between 800 and 899 than any other 100-point interval. In addition, examinees' chances of passing the CONNCEPT increased as their combined mathematics and verbal scores on the SAT approached 1,000; for example, while only 14.6% of all those reporting SAT scores below 700 passed the CONNCEPT, 83.2% of those reporting scores above 900 passed the examination (TABLE 8, page 15).

The contribution of waivers to the entire pool of candidates increased consistently over the four years, from approximately 18% in the first two years to more than 40% in the last two (TABLES 1 and 6, pages 6 and 13). Once more, these increases support Connecticut's strategy of utilizing CONNCEPT waivers to attract talented teachers to Connecticut.

CONNCEPT and the Recruitment of Minority Teachers

In general, minority representation remained low throughout the first four years of the program. Overall, 7.8% of all student examinees identified themselves as members of minority groups (TABLE 20, page 44). Compounding the problem of low representation were pass rates that were also low, compared with the pass rates of majority group examinees. While the overall or last time pass rate for all majority group examinees was approximately 83% over the four years, the pass rate for all minority group examinees was approximately 52% (TABLE 5, page 11). Although the disparity between White and minority performance is reason for concern, there is one encouraging trend that emerges from these data. Comparisions between White and minority examinees who retake

CONNCEPT show that the increase in pass rate from the first attempt is comparable across all ethnic groups. For example, the pass rate for Whites on the first attempt and the last attempt through March 1989 was 67.8% and 82.6% respectively, a 14.8% gain; Blacks, 37.3% and 52.5% respectively, a 15.3% gain; and Hispanics, 30.7% and 43.7% respectively, a 13.0% gain.

The proportion of minority students applying to teacher education programs in Connecticut was equally low although representation appeared to improve somewhat over the four years, peaking in 1987-88 with minorities representing 6.2% of teacher education candidates in Connecticut public universities and 13.7% in Connecticut private universities (TABLE 21, page 45). Overall, the last attempt pass rate of minority teacher education examinees was slightly higher than those of all other minority examinees (approximately 57.0% versus approximately 45.6%).

These results indicate that active recruitment is taking place, but that recruitment must be intensified if Connecticut is to meet its affirmative action goals. In addition, institutions of higher education must utilize aggressive efforts to identify minority students in need of remediation and provide these students with effective support. Similar initiatives have worked in other states. For example, according to the Educational Testing Service, a number of colleges and universities with high minority enrollments succeeded in substantially increasing the pass rates of their minority students on the National Teacher Examinations after implementing extensive preparation and remediation programs. Surely, Connecticut can succeed in effecting similar results.

Program Description

The CONNCEPT requirement is mandated by Section 10-145f of the Connecticut General Statutes. This requirement went into effect for Connecticut teacher education program candidates (students) in June 1986 and all certification candidates in May 1987.

The CONNCEPT requirement may be fulfilled in one of two ways: 1) passing all subtests of the CONNCEPT in one administration, or 2) qualifying for a CONNCEPT waiver.

The CONNCEPT consists of three subtests, a mathematics, reading and writing subtest. The mathematics and reading subtests are multiple-choice in format, with mathematics subtest items representative of five mathematics domains (see Appendix) and the reading items embedded in a series of reading passages of increasing prose difficulty. Examinees receive feedback regarding their overall performance on the mathematics and reading subtest as well as their performance in each mathematics domain area.

The writing subtest requires each examinee to produce a writing sample in response to a specified topic (prompt). Each writing sample is holistically scored by Connecticut language arts teachers. This score determines whether an examinee passes or fails the writing subtest. In addition, writing samples of failing candidates are further evaluated for primary areas of writing deficiency, based on seven writing criteria (see Appendix) developed for the purpose of assisting examinees in developing their writing skills. Examinees failing the writing subtest receive a report of their overall writing performance as well as their performance on the seven writing criteria.

Candidates may meet the eligibility requirements for a CONNCEPT waiver by submitting either (a) proof of a combined score of 1,000 or more on the Scholastic Aptitude Test (SAT), with a minimum score of 400 on both the verbal and mathematics subtests, (b) proof of a composite score of 25 or more on the American College Testing Program (ACT) assessment, with no less than 22 on the English subtest and 19 on the Mathematics subtest*, or (c) proof of a combined score on the Prueba de Aptitude Academica equivalent to 1,000 on the SAT, with

*The above ACT scores are based on a revised ACT score scale, effective October 1989. Equivalent ACT scores received prior to October 1989 are as follows: Composite-24, English-20, Mathematics-17.

neither the mathematics nor the verbal subtest below the equivalent of 400 on the SAT. While the SAT waiver has been available since 1985, the ACT waiver became available in 1987 and the PAA waiver in 1988.

General Overview

This report examines the results of the first four years of the CONNCEPT program, including information on the CONNCEPT waivers granted during that period. CONNCEPT administrations took place twice in each of the first two years and four times in each of the most recent two years examined in this report:

	ADMINISTRATION				
Program Year*	July	August	October	November	March
1985-86			X		X
1986-87				X	X
1987-88	X**	X		X	X
1988-89	X	X		X	X

*Program years begin in July of each year and end with the March administration of the following year.

**A special June administration which included only eight candidates was combined for reporting purposes with the July 1987 administration.

It is important to note the fundamental difference in the examinee population in the first two years and the last two years of the program. The first two years (1985-86 and 1986-87) mostly comprised teacher education program candidates; that is, college students applying to Connecticut teacher education programs. During these two years, statutory provisions required only applicants to Connecticut teacher programs to meet the CONNCEPT requirement. Throughout the report, these examinees are referred to as teacher education program candidates or as students.

By contrast, examinees from the last two years of the program addressed in this report, include both students applying to teacher education programs and

experienced teachers seeking Connecticut certification. Teacher examinees may be out-of-state teachers with out-of-state credentials or Connecticut teachers whose certification has expired or been revoked. As of May 1987, statutory provisions required all teacher education and teacher certification candidates, including those teachers with the invalid credentials, to meet the CONNCEPT requirement. The noted changes in the examinee population should be considered as the program performance results are examined.

Definition of Terms

Candidates	CONNCEPT waiver recipients and CONNCEPT examinees
Cohort	All the candidates first seeking to meet the CONNCEPT requirement in a specific fiscal year.
Examinees	Those seeking to meet the CONNCEPT requirement by taking and passing the CONNCEPT
Waiver recipients	Those seeking to meet the CONNCEPT requirement by meeting the eligibility standards for an SAT, ACT or PAA waiver
First-attempt or first-time pass rate	The pass rate associated with performance the first time the examination is taken.
Last-attempt or Last-time pass rate	Overall pass rate; that is, the pass rate based on performance of candidates or their last attempt to pass the examination
Eventual pass rate	Projected pass rates; that is, the pass rate each cohort is eventually expected to achieve. Cohort 1 is represented by all candidates seeking to meet the CONNCEPT requirement in 1985-86; Cohort 2--1986-87; Cohort 3--1987-88; Cohort 4--1988-89
First-timers	Examinees taking the CONNCEPT for the first time
Retakers	Examinees taking the CONNCEPT more than once
Last-timers	Examinees are characterized by their most recent attempt to pass the CONNCEPT. The performance of these examinees is described as a last-attempt or last-time pass rate.

CONNCEPT requirement	The essential skills requirement for all Connecticut certification applicants and teacher education program applicants. The requirement may be met by passing the CONNCEPT or meeting the CONNCEPT waiver eligibility standards.
CONNCEPT	Connecticut's essential skills examination

II OVERALL CONNCEPT RESULTS

This section addresses the following questions regarding the candidate pool:

1. How many candidates attempted to fulfill the CONNCEPT requirement?
2. What was the success rate for all candidates?
3. What was the success rate for first-time examinees?
4. How did examinees perform on the various subtests?
5. Is Connecticut attracting more highly qualified candidates overall?

The Growth of CONNCEPT

The number of candidates for Connecticut certification seeking to fulfill the CONNCEPT requirement has grown substantially since the inception of the examination in October 1985. Although one indication of the program's expansion is the annual increase in the number of first time CONNCEPT candidates, the program's growth is more fully reflected in the increased number of tests administered annually to both first-time examinees and retakers. Tables 1 and 2 present the number of CONNCEPT candidates over the four years of the program taking the CONNCEPT at least once, as well as the number of tests administered over the same period.

As TABLE 1 indicates, the CONNCEPT program has grown substantially over the four-year period with a grand total of 7,769 examinees and 4,464 waiver recipients. In Year 3, when the legislative mandate became effective for all certification candidates, the number of CONNCEPT examinees increased to approximately 20% over the number of candidates from the first two years of the program combined. When waiver recipients are included with the number of examinees, the total number in Year 3 increases to 60% over the number of candidates in Years 1 and 2 combined. Similar increases took place in Year 4.

Naturally, the number of tests administered (TABLE 2) is far greater than the number of examinees, since this quantity includes tests administered for initial and follow-up attempts to pass the examination. Tests administered annually increased over the four-year period, with a total of 10,354 tests administered. Year 2 to Year 3 represents the greatest year-to-year increase.

TABLE 1 presents an overview of all first-time candidates who sought to fulfill the CONNCEPT requirement since the CONNCEPT was implemented. Highlights of the table follow.

TABLE 1

CANDIDATES ATTEMPTING TO MEET THE CONNCEPT REQUIREMENT
ON THE FIRST ATTEMPT BY ADMINISTRATION YEAR

	CONNCEPT ---Examinees---		Waiver ---Recipients---		Total ---Candidates---	
Program Year	Number	Percent	Number	Percent	Number	Percent
YEAR 1						
Oct. 1985-Mar. 1986	1,020	81.9%	225	18.1%	1,245	100.0%
YEAR 2						
Nov. 1986-Mar. 1987	1,127	82.0%	248	18.0%	1,375	100.0%
YEAR 3						
Jul. 1987-Mar. 1988	2,550	59.9%	1,704	40.1%	4,254	100.0%
YEAR 4						
Jul. 1988-Mar. 1989	3,072	57.3%	2,287	42.6%	5,359	100.0%
TOTAL	7,769	63.5%	4,464	36.5%	12,233	100.0%

Note: Years 1 and 2 primarily reflect the number of Connecticut teacher education program candidates, while Years 3 and 4 reflect the full impact of the legislative mandate requiring all certification candidates to pass the CONNCEPT or meet the waiver requirement.

Highlights of TABLE 1:

- A total of 12,233 candidates (CONNCEPT examinees and waiver recipients) have attempted to fulfill the CONNCEPT requirement since October 1985.

- The number of CONNCEPT candidates (examinees and waiver recipients) increased most in Year 3, with an increase of 62.4% (i.e., 4,254 vs. 2,620) over the combined first two years. In Year 4, a marked increase of 26.0% (i.e., 5,359 vs. 4,254) over the previous year occurred.

- The number of waiver recipients grew most in Year 3, when the number of waiver recipients increased by 260.3% (1,704 vs 473) over the previous two

years. In Year 4, a more moderate increase in the numbers of waiver candidates, of 34.2% (2,287 vs. 1,704) over the previous year was recorded.

- Increases in CONNCEPT examinees continued to show appreciable growth with an increase of 18.8% in Year 3 over the combined first two years and, in Year 4, an increase of 20.5% over the previous year.

- The contribution of waivers to the proportion of candidates meeting the requirement increased substantially over the four-year period. In Years 1 and 2, waiver recipients represented 18.1% of all candidates attempting to meet the requirement, while in Year 3 they represented 40.1% of all candidates and in Year 4, 42.7% of all candidates.

TABLE 2 presents an overview of the tests administered (the total number of tests administered to both first-time examinees and retakers as well as waivers processed over four years).

TABLE 2

TESTS ADMINISTERED AND WAIVERS PROCESSED BY YEAR

Program Year	Tests Administered: First Takes	Tests Administered: Retakes	Waivers Granted	Total Tests and Waivers
YEAR 1: 1985-86	1,020	104	225	1,349
YEAR 2: 1986-87	1,127	526	248	1,901
YEAR 3: 1987-88	2,550	804	1,704	5,058
YEAR 4: 1988-89	3,072	1,151	2,287	6,510
TOTAL	7,769	2,585	4,464	14,818

Note: Includes the total number of tests administered to first-timers and retakers as well as the number of waivers granted.

Years 1 and 2 primarily reflect Connecticut teacher education program candidates, while Years 3 and 4 reflect the full impact of the legislative mandate requiring that all certification candidates pass the CONNCEPT or meet the eligibility standards for a CONNCEPT waiver.

Highlights of TABLE 2:

- A total of 14,818 tests and waivers were processed between the inception of the program and the March 1989 administration for a total of 10,354 tests and 4,464 waivers.

- A total of 10,354 tests were administered to 7,769 examinees over the four-year period. Approximately 25% of all tests were administered to retakers.

- The number of tests and waivers increased most in Year 3 of the program, with an increase of 55.6% over the first two years. In Year 4, a more moderate increase of 28.7% was recorded over Year 3.

- The number of candidates retaking the exam increased in each year of the program. Accordingly, the ratio of tests to examinees was most notable in Year 4, when approximately 28% of all tests were administered to retakers.

Last-time and Eventual Pass Rates

CONNCEPT is a criterion-referenced examination designed to measure examinees' knowledge and skills in relation to established standards of competence in reading, writing and mathematics, rather than in relation to the performance of other examinees. Accordingly, examinees are provided score reports detailing overall performance on each subtest as well as feedback on the areas of deficiency recorded for the mathematics and writing subtest. These profile reports may be utilized in examinees' remediation efforts. This assessment strategy presumes that examinees will improve their performance, and therefore, that overall pass rates will improve with remediation.

The pass rates associated with this assessment strategy are presented in TABLES 3, 4 and 5. These tables provide last-time performance based on examinees' most recent attempts to pass the CONNCEPT through the March 1989 administration, including last-time performance by ethnic group.

Last-time pass rates indicate that, through March 1989, 80.0% of all CONNCEPT examinees had passed the examination. This indicates that examinees who retake CONNCEPT have a reasonable probability of passing. In spite of the overall 80% pass rates, the pass rates of minority and majority candidates remained severely discrepant. While the pass rate of majority examinees was 83%, the pass rate for minority examinees was 52%.

Pass rates by cohort provide some indication of the proportion of candidates that will eventually be screened out of teaching. Cohort analysis

indicates that CONNCEPT eventually screened out less than 20% of each cohort. In addition, the first-time performance of cohorts indicates that later cohorts performed better than earlier ones.

TABLE 3 presents overall eventual pass rates. For example, the number of examinees in Year 1 represents those individuals who last took the CONNCEPT in year 1. The number of examinees in Year 2 represents individuals who last took the examination in Year 2.

TABLE 3

PASS RATES BY EXAMINEES TO DATE BY THE YEAR IN WHICH THEY LAST TOOK CONNCEPT

Program Year	Total Number	Passed Number	Passed Percent	Failed Number	Failed Percent
YEAR 1: 1985-86	722	603	83.5%	119	16.5%*
YEAR 2: 1986-87	1,068	937	87.7%	131	12.3%
YEAR 3: 1987-88	2,339	2,022	84.3%	377	15.7%
YEAR 4: 1988-89*	3,580	2,654	74.1%	926	25.9%
TOTAL	7,769	6,216	80.0%	1,553	20.0%

*The last-time pass rate for Year 4 is artificially low, since examinees who last took the examination in Year 4 have not had as many opportunities to retake the CONNCEPT as first-time examinees from previous years.

Highlights of TABLE 3:

- Of the 7,769 candidates taking the CONNCEPT, 6,216 (80.0%) have passed the CONNCEPT over the first four years of the program.
- Examinees taking the CONNCEPT for the last time in Year 2 recorded the highest pass rate (87.7%).
- Although examinees who first took the CONNCEPT in Year 4 had limited opportunities to take the test, more than 74% passed the examination in that year.

TABLE 4 presents cumulative pass rates of examinees by cohort; for example, Cohort 1 comprises first-time examinees and waiver recipients from 1985-86 and Cohort 2 comprises first-time examinees and waiver recipients from 1986-87 etc. Performance is presented after the first attempt and at the end of each program year; for example, 783 candidates or 62.9% met the requirement after the first attempt, but 828 or 66.5% met the requirement at the end of the first year, 1985-86.

TABLE 4

CUMULATIVE PROPORTION OF CANDIDATES MEETING THE CONNCEPT REQUIREMENT BY COHORT

Testing Period	COHORT 1 N = 1,245 (1985-86)		COHORT 2 N = 1,373 (1986-87)		COHORT 3 N = 4,254 (1987-88)		COHORT 4 N = 5,359 (1988-89)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
First-Time	783	62.9%	916	68.1%	3,403	80.0%	4,417	82.4%
End of One Year	828	66.5%	1,032	75.1%	3,542	83.3%	4,640	86.6%
End of Two Years	981	78.8%	1,173	85.3%	3,778	88.8%		
End of Three Years	1,024	82.2%	1,210	88.0%				
End of Four Years	1,052	84.5%						

Highlights of TABLE 4:

- Cohorts increased substantially in size from year to year, with the smallest represented by 783 in Cohort 1 (candidates first attempting to meet the requirement in 1985-86) and the largest by 5,359 in Cohort 4 (candidates first attemping to meet the requirement in 1988-89).

- First-time performance indicates that later cohorts performed better than earlier ones. For example, the first-time success rate for Cohort 1 was 62.9% while the first-time success rate for Cohort 4 was 82.4%.

- Cumulative performance for each cohort indicates that later cohorts (Cohorts 3 and 4) required fewer attempts to equal and exceed the success rates of earlier ones (Cohorts 1 and 2). The cumulative success rate for each Cohort was as follows:

  - 84.5% for Cohort 1 after 4 years
  - 88.0% for Cohort 2 after 3 years
  - 88.8% for Cohort 3 after 2 years
  - 86.6% for Cohort 4 after 1 years

TABLE 5 presents overall last-time pass rates by ethnic status. Note that TABLE 5 reflects how examinees reported their ethnic status on their first attempt.

TABLE 5

LAST TIME CONNCEPT PASS RATES BY ETHNIC STATUS

	Passed		Failed	
Ethnic Status	Number of Examinees	Percent	Number of Examinees	Percent
Am. Indian	17	81.0%	4	19.0%
Asian Am.	33	68.8%	15	31.3%
Black	166	52.5%	150	47.5%
Hispanic	94	43.7%	121	56.3%
White	5,866	82.6%	1,235	17.4%

Note: Information regarding ethnic status was unavailable for 68 examinees.

Highlights of TABLE 5:

- With the exception of American Indian examinees, a disparity existed between the last-time pass rates of majority and minority examinees for the four-year period:

  - As of March 1989, the last-time pass rate of majority examinees was 82.6%, 2.6% above the overall pass rate for all examinees.

  - The last-time pass rate of minority examinees was 51.7%, 28.3 percentage points below the overall pass rate for all examinees and 30.9 percentage points below the last-time pass rate of majority examinees.

- Over the four-year period, White examinees had the highest last-time pass rate (82.6%), followed by American Indians (81.0%), Asian Americans (68.8%), Blacks (52.5%) and Hispanics (43.7%). Consequently, with the exception of Hispanic candidates, more than half the examinees from each ethnic group passed the CONNCEPT at the end of the four-year period.

Performance of First-time Examinees

Last-time and eventual pass rates previously presented most accurately represent the overall performance of CONNCEPT candidates as well as the eventual impact of the CONNCEPT requirement on teacher supply. This last-time performance represents the effects of practice and remediation, providing a complete view of performance to date. Conversely, the performance of first-time CONNCEPT candidates represents the widest range of candidate abilities, expectations and preparation, since no practice effects or remediation had occurred at the first attempt.

Tables 6 and 7 present first-time performance by administration year as well as by subtest by administration year. CONNCEPT results during the four-year period suggest that overall first-time performance improved consistently from year to year. The most recent administration year (1988-89) recorded the highest first-time CONNCEPT pass rate at 69.3%. In addition, the highest success rate for all first-time candidates (examinees and waiver recipients) was recorded in 1988-89 at 82.4%.

Pass rates by subtest indicated that while performance on the reading and mathematics subtest remained generally stable over the four-year period, substantial improvement in performance occurred on the writing subtest. This is particularly significant, given the history of the writing subtest as the most difficult subtest and as contributing most to failure on the CONNCEPT. Consequently, improved pass rates on the writing subtest resulted in improved overall first-time performance on the examination.

TABLE 6 presents the performance of first-time CONNCEPT examinees and waiver recipients over the four years of the program.

TABLE 6

CANDIDATES MEETING THE CONNCEPT REQUIREMENT ON THE FIRST ATTEMPT

Program Year	Number of Examinees	First-Timers Number	First-Timers Percent	Waiver Recipients	Total Number and Percent Qualified	
YEAR 1: 1985-86	1,020	558	54.7%	225	783	62.9%
YEAR 2: 1986-87	1,127	689	61.1%	248	936	68.1%
YEAR 3: 1987-88	2,550	1,698	66.6%	1,704	3,403	80.0%
YEAR 4: 1988-89	3,072	2,129	69.3%	2,287	4,417	82.4%
TOTAL:	7,769	5,074	65.3%	4,464	9,539	78.0%

Note: Years 1 and 2 primarily reflect the attempts of teacher education candidates, while Years 3 and 4 represent the full impact of the legislation requiring that all candidates pass the CONNCEPT or meet the eligibility standards for a CONNCEPT waiver.

Highlights of TABLE 6:

- First-time pass rates improved consistently across the four years, with the lowest pass rate recorded in the first year of the program (54.7%) and the highest pass rate recorded in the fourth year (69.3%). However, it is important to note that even four years after the program began, about 3 out of every 10 examinees in Year 4 failed to pass the examination on the first attempt.

- In both Year 3 and Year 4, the number of waiver recipients exceeded the number of first-time candidates passing the CONNCEPT. In Year 3, 1,699 individuals passed the CONNCEPT and 1,704 received CONNCEPT waivers, while in Year 4, 2,130 passed CONNCEPT and 2,287 received CONNCEPT waivers.

- Of the 12,233 candidates seeking to meet the CONNCEPT requirement (by taking the CONNCEPT or waiving the CONNCEPT), a total of 78.0% (9,539) passed the CONNCEPT on the first attempt or qualified for a waiver.

  - 36.5% (4,464) of the total pool received CONNCEPT waivers.

  - 41.5% (5,075) of the total pool passed the CONNCEPT on the first attempt.

Table 7 presents performance of first-time examinees over the four years of the program by subtest (the mathematics, reading and writing subtests of the CONNCEPT).

TABLE 7
PASS RATES OF FIRST-TIME EXAMINEES ON CONNCEPT SUBTESTS

Program Year	Number of Examinees	PASS RATES			
		Mathematics	Reading	Writing	CONNCEPT
YEAR 1	1,020	76.5%	86.8%	71.2%	54.7%
YEAR 2	1,127	82.2%	97.3%	71.0%	61.1%
YEAR 3	2,550	82.9%	90.4%	76.9%	66.6%
YEAR 4	3,072	83.3%	94.3%	79.3%	69.3%
TOTAL	7,769	82.1%	92.4%	76.3%	65.3%

Note: Years 1 and 2 primarily reflect the attempts of teacher education candidates, while Years 3 and 4 represent the full impact of the legislation requiring that all candidates pass the CONNCEPT or meet the eligibility standards for a CONNCEPT waiver.

Highlights of TABLE 7:

- Overall, the writing subtest remained the most difficult to pass over the four years of the program, with 76.3% meeting the Connecticut writing standard. Mathematics was the second most difficult subtest to pass, with 82.1% passing. The reading subtest was the least difficult subtest, with 92.4% meeting the standard.

- Pass rates for the mathematics subtest remained relatively stable for the past four years, with the greatest increase noted in Year 2 of the program when the pass rate increased from 76.5% to 82.2%. Since Year 2, the pass rate has increased by approximately 0.5 percentage points per year.

- Except for Year 1, pass rates for reading exceeded 90%, with the best performance taking place in Year 2 when pass rates increased from 86.8% to 97.3%. Although a decline to 90.4% was recorded in Year 3, the reading pass rate rebounded to a pass rate of 94.3% in Year 4.

- Pass rates for the writing subtest steadily increased over the four-year period, with the highest pass rate of 79.3% registered in Year 4 of the program.

- With the mathematics and reading pass rates remaining stable and relatively high, the writing pass rates had the greatest impact on first-time pass rates over the four-year period.

TABLE 8 presents the performance of first-time examinees by self-reported SAT scores over the four years of the program.

TABLE 8

FIRST-TIME PASS RATES BY SELF-REPORTED SAT SCORES

SAT Scores	Total Number	Passed	Failed
Below 549	19	0.0%	100.0%
550 - 599	38	10.5%	89.5%
600 - 649	110	14.6%	85.5%
650 - 699	159	26.4%	73.6%
700 - 749	367	42.0%	58.0%
750 - 799	440	56.8%	43.2%
800 - 849	741	62.2%	37.8%
850 - 899	764	70.3%	29.7%
900 - 949	833	83.2%	16.8%
950 - 999	890	84.3%	15.7%

Note: Examinees with SAT scores of 1,000 or more are eligible for a CONNCEPT SAT waiver.

Highlights of TABLE 8:

- Over the four-year period, examinees with higher self-reported SAT scores, approaching a score of 1,000 on the SAT (verbal and mathematics scores), had higher pass rates on the CONNCEPT.

- Examinees who scored below 800 on the SAT had a substantially lower probability of passing the CONNCEPT than those candidates scoring higher than 800.

- More candidates reported SAT scores between the 100-point interval of 900 and 999 than between any other 100-point interval. This compares favorably with self-reported SAT scores after the first two years of the CONNCEPT when more candidates reported SAT scores between the interval of 800 and 899 than between any other interval.

TABLE 9 presents first-attempt pass rates of CONNCEPT examinees by ethnic status. This table may be used in conjunction with TABLE 5 which presented last-attempt pass rates by ethnic status.

TABLE 9

PASS RATES BY FIRST-TIME PERFORMANCE BY ETHNIC STATUS

	Passed		Failed	
Ethnic Status	Number of Examinees	Percent	Number of Examinees	Percent
Am. Indian	16	76.2%	5	23.8%
Asian Am.	23	47.9%	25	52.1%
Black	118	37.3%	198	62.7%
Hispanic	66	30.7%	149	69.3%
White	4,817	67.8%	2,284	32.2%

Highlights of TABLE 9:

- Essentially the same disparity existed between the first-time pass rates of minority and majority examinees as existed between last-time pass rates of these examinees over the four-year period. The greatest disparity existed between the pass rates of Hispanic and White examinees.

- Over the four-year period, the highest first-time pass rates were recorded by American Indian candidates, followed by White candidates, Asian American, Black and Hispanic candidates.

- Over the four-year period, a disparity of 30.7 percentage points existed between the first-time pass rates of minority and majority candidates.

Policy Implications

CONNCEPT has grown substantially in the past two years. In Year 3, the number of tests administered represented nearly 150% of the tests administered in Years 1 and 2 combined. In Year 4, the tests administered represented more than 125% of the tests administered the previous year.

The number of waivers granted grew concurrently with the increased number of examinees, with the proportion of waivers granted in Year 3 representing more than 250% of those granted in Years 1 and 2 combined. A more moderate increase was noted in Year 4 of approximately 130% of the number of waivers granted in Year 3.

The effective date of the legislative mandate (May 1987) and the introduction of salary increases coincide with the increase in CONNCEPT candidates. Therefore, the growth in the program is attributed primarily to two components of the Education Enhancement Act: 1) Section 10-145f of the Connecticut General Statutes which requires that all prospective teachers not holding a valid provisional, standard or permanent certificate must pass the CONNCEPT or qualify for a CONNCEPT waiver; and 2) the increases in salaries mandated for all beginning and experienced Connecticut public school teachers.

The number of waiver recipients as well as the proportion of candidates passing the CONNCEPT on their first attempt increased consistently over the four years of the program. In the second year of the program, pass rates improved by 6.4 percentage points. In Year 4, pass rates improved 2.7 percentage points over the previous year. The performance of first-timers and the large increase in waiver recipients suggests that Connecticut is attracting more capable certification candidates.

In addition to attracting a more capable pool of candidates, the projected eventual success rate of candidates meeting the CONNCEPT requirement (90%) has positive implications for teacher supply in Connecticut; that is, Connecticut is attracting more capable individuals and the CONNCEPT requirement has minimal impact on Connecticut's supply of teachers.

During the four-year period, a number of steps were taken to attract highly qualified teacher candidates and to increase the efficiency of the CONNCEPT program.

CONNCEPT Waivers. With regard to CONNCEPT waivers, in August 1988 the Prueba de Aptitude Academica (PAA or Spanish SAT) was added as a third means of qualifying for a CONNCEPT waiver. Standardized examinations will continue to be evaluated for their appropriateness as CONNCEPT waivers.

Test Sites. The growing number of CONNCEPT examinees has been addressed by increasing the number of test sites and by CSDE sharing some administration expenses with state universities to reduce the financial burden of maintaining test sites at those institutions. In addition, high schools have been added to the roster of test sites currently available as a means of reducing the number of examinees at state university sites. The number of sites utilized per administration is as follows:

ADMINISTRATIONS	YEARS 1 AND 2	YEARS 3 AND 4
July	*	4
August	*	1
November**	4	5
March	4	5

* In the first two years of the CONNCEPT, no July or August administrations existed.
**In Year 1, the CONNCEPT administration took place in October.

With the implementation of a reduced fee for retakers ($10 versus $48 for first-time candidates), the CONNCEPT program is likely to experience increased numbers of registrants in the next two years. Accordingly, the accommodation of examinees will continue to be a priority for the CONNCEPT program. With additional examinees come associated increases in the number of requests for late registration from candidates who have either employment or student-teaching opportunities pending. Accordingly, two issues of concern are expected to emerge: 1) adequate quantities of appropriate test sites; and 2) the implementation of late registration. Projected increases for examinees in Years 5 and 6 are provided below:

Fiscal Year	Number of Examinees	Number of Tests Administered
Year 1: 1985-86	1,020	1,124
Year 2: 1986-87	1,127	1,653
Year 3: 1987-88	2,550	3,354
Year 4: 1988-89	3,072	4,223
Year 5: 1989-90	3,533	4,645
Year 6: 1990-91	4,063	5,016

Special Testing Accommodations. The increase in registrants has resulted in concomitant increases in the number of requests from learning or physically disabled candidates for special testing conditions. Special accommodations have been made in more than 54 cases since 1986. In addition, since the inception of the program, the largest number of special accommodations (23) were made in 1988-89. Accordingly, the challenge of providing equitable testing conditions while maintaining the validity of the CONNCEPT has become a major concern.

Thus far, the CONNCEPT program has attempted to address issues regarding the testing of the disabled in two ways: 1) developing Special Accommodations Guidelines; and 2) establishing a six-member Special Accommodations Standing Committee responsible for evaluating requests for special testing accommodations. Special testing conditions offered under the guidelines include: extra time, the use of a separate testing room, the use of a reader or an interpreter, the availability of test forms in large type or Braille and special equipment.

Continued increases in requests for special accommodations are expected, particularly from examinees with hearing impairments and learning disabilities. The CONNCEPT program will closely monitor the performance of disabled examinees receiving special accommodations to determine the impact of the accommodations provided as well as to examine the necessity of proposing additional policy considerations regarding the testing of these individuals.

Remediation and Support. The pass rates to date (i.e., pass rates based on performance on the last attempt to pass the examination) indicate that examinees benefit from preparation and remediation. For example the last-time pass rate through March 1989 was 80%; hence, as of March 1989 only 20% of those examinees who had taken the exam had not passed it. In addition, eventual pass rate by cohort provides even more optimistic results; for example, Cohort 1 which had the lowest first-time pass rate (54.7%), recorded an eventual pass rate of 84.5% after four years. These pass rates support the establishment of more extensive CONNCEPT preparation and remediation programs in colleges and universities as well as in local school districts to assist more examinees in passing the examination on their first attempt.

III SPECIAL ANALYSES

In addition to providing aggregated results of the CONNCEPT performance and waiver applications, the CSDE investigated a number of policy concerns surrounding the CONNCEPT legislative mandate. These special analyses focus on issues that required particular staff attention during the period examined. In addition, they represent issues with broad impact on the program and its purpose. In some instances these issues required resolution; in others, this report provides guidance to address emerging Department concerns.

In this report five issues are explored. The special analyses associated with these issues are briefly described below. Interpretations of the analyses are presented on the following pages.

Analysis 1: It was noted earlier in this report that as a criterion-referenced examination, CONNCEPT measures examinees' knowledge and skills in relation to a set of established standards. Accordingly, a critical part of the CONNCEPT score report is that portion of the report which provides feedback to examinees regarding their performance. This feedback is provided with the expectation that examinees who fail the CONNCEPT can improve their performance with the provision of performance profiles and the assistance of remediation. This portion of the report primarily addresses issues evolving from the criterion-referenced nature of the examination and implications about candidate preparation and remediation. (See pages 22 to 33.)

Analysis 2: The CONNCEPT requirement went into effect for students approximately one year before it became effective for all certification candidates. Therefore, as of June 30, 1986, passing the CONNCEPT or meeting the eligibility standards for a CONNCEPT waiver became a requirement for formal admission to the 14 State Board-approved teacher education programs in Connecticut. The CONNCEPT has had direct impact on the acceptability of teacher education candidates and concern has been voiced about the potentially negative effects that CONNCEPT would have on teacher education program recruitment and stability. Analysis 2 summarizes the overall effect of the CONNCEPT requirement on Connecticut teacher education programs. (See pages 34 to 42.)

Analysis 3: With the proportion of minority teachers estimated at 5.9% of the total pool of teachers in 1988-89 and the proportion of minority students estimated at 23.6% in the same school year, Connecticut is confronted with a significant imbalance that requires special policies to attract and retain increased numbers of minority teacher candidates to meet its needs. This special analysis presents a profile of the outcome of minority recruitment efforts in Connecticut teacher education programs and suggests how the CONNCEPT may be utilized to enhance these efforts. (See pages 43 to 50.)

Analysis 4: Although the CONNCEPT provides diagnostic feedback, it is primarily a screening device. The CONNCEPT screens by virtue of the competencies tested, the passing standards set for each subtest as well as the standard requiring that candidates pass all three subtests in the same administration. This section of the report examines the effect of the CONNCEPT on those individuals who pass all three subtests in different administrations, and therefore, fail the exam. (See pages 51 to 55.)

Analysis 5: In an attempt to further gauge the impact of the CONNCEPT on examinees, the CSDE conducted a survey of all candidates who retook the examination as well as those who failed to retake it after two or more opportunities to do so. Based on survey responses, the final analysis in this report presents a profile of these candidates focusing on their career plans and the effect of the CONNCEPT on those plans. (See pages 56 to 60.)

ANALYSIS 1: DIAGNOSTIC PROFILE OF CONNCEPT EXAMINEES

As noted previously, performance feedback is provided on both the mathematics and writing subtests of the CONNCEPT. Examinees receive profiles of their performance on each of the five mathematics domains (described in Appendix). In addition, each examinee failing the writing subtest receives a description of the areas of writing deficiency noted in their writing samples. Evaluation of their performance is based on the seven writing criteria (described in Appendix) provided as writing guidelines for all examinees.

Analysis 1 addresses the following questions regarding the performance of examinees on the five mathematics domains and seven writing criteria:

1. What were the primary areas of writing weakness for CONNCEPT examinees failing the writing subtest?

2. Did the primary areas of writing and mathematics deficiency change over the four years of the program?

3. How did examinees perform on the five domains of the mathematics subtest?

4. Did retaker performance improve across administrations?

5. Did performance on the five mathematics domains and the seven writing criteria differ across ethnic groups?

Areas of Writing Deficiency

A profile of the writing deficiencies of candidates failing the writing subtest is derived through a procedure described as analytic scoring or analytic evaluation. This procedure requires trained scorers to read writing samples designated as failing and then to identify those writing deficiencies contributing most to failure. In completing this task, analytic scorers rely on the seven writing criteria provided all examinees as guidelines in determining areas of deficiency.

TABLES 10, 11 and 12 present summaries of the areas in which examinees failing the writing subtest were most commonly judged deficient during the four years of the program. Results of the first four years of the program indicate that although pass rates improved, the primary areas of writing deficiency remained relatively stable over the four-year period. However, examinees had least

difficulty with addressing the topic and remaining on topic and difficulties in these areas declined. Difficulty in the area of organization, once an area with a high frequency of deficiency, declined through Year 4.

TABLE 10 presents the percentage of examinees failing the writing subtest who were judged deficient in each of the CONNCEPT analytic evaluation categories (writing criteria) by year of administration.

TABLE 10

PERFORMANCE OF FAILING EXAMINEES BY ANALYTIC WRITING CRITERIA BY YEAR

Year of Administration	Number of Examinees	Writing Criteria						
		No. 1	No. 2	No. 3	No. 4	No. 5	No.6	No. 7
YEAR 1	294	53.4%	39.1%	71.1%	58.2%	55.8%	73.5%	69.7%
YEAR 2	327	43.4%	34.9%	59.9%	58.7%	48.6%	64.2%	58.7%
YEAR 3	588	18.5%	16.5%	49.7%	54.3%	40.1%	52.4%	49.2%
YEAR 4	636	15.3%	16.2%	42.6%	35.1%	33.5%	53.5%	56.5%
TOTAL:	1,845	27.4%	23.3%	52.5%	49.1%	41.8%	58.2%	56.6%

Note: The higher the percentage, the greater the frequency of the judged deficiency in the writing category.

Analytic Writing Criteria (Categories)

1. State and stay on topic.
2. Address all specified parts of the writing assignment.
3. Present ideas in an organized fashion.
4. Include sufficient detail and elaboration to statement.
5. Choose effective words.
6. Employ correct grammar and usage.
7. Use correct mechanics (spelling, capitalization, punctuation, paragraph form, etc.).

Note: For additional information regarding the analytic writing criteria, refer to the CONNCEPT Study Guide for Writing and Reading.

Highlights of TABLE 10:

- Overall, over the four-year period, candidates failing the writing subtest had most difficulty with Criterion 6, Employ Correct Grammar and Usage (58.2%); followed by Criterion 7, Use Correct Mechanics (56.6%); and Criterion 3, Present Ideas in an Organized Fashion (52.5%).

- Candidates had least difficulty with Criterion 1, State and Stay on Topic (27.4%) and Criterion 2, Address All Parts of the Assignment (23.3%).

- Over the four-year period, the percentage of examinees judged deficient in each category declined substantially, with the greatest decline noted in Criterion 1 (State and Stay on Topic), followed by Criterion 3 (Presenting Ideas in an Organized Fashion), and Criterion 4 (Include Sufficient Detail and Elaboration).

TABLE 11 presents the performance of examinees failing the writing subtest by ethnic subgroup. The higher the percentage, the greater the proportion of examinees judged deficient on that analytic criterion.

TABLE 11

PERFORMANCE OF FAILING EXAMINEES BY ANALYTIC WRITING CRITERIA
BY ETHNIC SUBGROUP

		Writing Criteria						
Ethnic Group	No. of Examinees	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
Am. Indian	4	25.0%	0.0%	75.0%	25.0%	50.0%	100.0%	100.0%
Asian Am.	18	50.0%	11.1%	38.9%	27.8%	55.6%	83.3%	66.7%
Black	129	17.1%	19.4%	46.5%	45.7%	44.2%	62.0%	51.9%
Hispanic	117	13.7%	15.4%	49.6%	43.6%	51.3%	73.5%	66.7%
White	1,553	29.2%	24.4%	53.4%	50.4%	40.9%	56.3%	56.0%

Ethnic status unavailable for 292 examinees.

Analytic Writing Criteria (Categories)

1. State and stay on topic.
2. Address all specified parts of the writing assignment.
3. Present ideas in an organized fashion.
4. Include sufficient detail and elaboration to statement.
5. Choose effective words.
6. Employ correct grammar and usage.
7. Use correct mechanics (spelling, capitalization, punctuation, paragraph form, etc.)

Highlights of TABLE 11:

- The pattern of areas of deficiency was essentially the same for Black and White examinees, with Criterion 6, (Grammar and Usage) and Criterion 7, (Correct Mechanics), as the most frequently identified deficiencies, followed by Criterion 3 (Organization), Criterion 4 (Elaboration and Detail) and Criterion 5 (Wording).

- Hispanics and Asian Americans were identified as more deficient in Criterion 5 (Choose Effective Words), more often than all other ethnic groups, indicating fundamental language difficulties. In addition, a greater proportion of Asian Americans was identified as deficient in Criterion 1 (State and Stay on Topic) than all other ethnic groups.

TABLE 12 presents the performance of examinees who consistently fail the writing subtest by analytic writing criteria. The higher the percentage, the greater the proportion of examinees judged deficient on that analytic criterion.

TABLE 12

PERFORMANCE OF EXAMINEES FAILING THE WRITING SUBTEST
BY ANALYTIC WRITING CRITERIA BY TIMES TAKEN

Times Taken	No. of Examinees	Writing Criteria						
		No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
1	1,845	27.4%	23.3%	52.5%	49.1%	41.8%	58.2%	56.6%
2	589	23.1%	16.0%	51.1%	48.4%	44.7%	61.3%	51.8%
3	234	21.8%	16.2%	46.2%	48.7%	39.3%	55.6%	55.6%
4	93	14.0%	19.4%	38.7%	41.9%	43.0%	53.8%	57.0%
5	43	7.0%	9.3%	34.9%	37.2%	39.5%	55.8%	72.1%
6	21	19.1%	19.1%	57.1%	52.4%	28.6%	66.7%	47.6%

Analytic Writing Criteria (Categories)

1. State and stay on topic.
2. Address all specified parts of the writing assignment.
3. Present ideas in an organized fashion.
4. Include sufficient detail and elaboration to statement.
5. Choose effective words.
6. Employ correct grammar and usage.
7. Use correct mechanics (spelling, capitalization, punctuation, paragraph form, etc.)

Highlights of TABLE 12:

- With the exception of Criterion 5 (Choose Effective Words), multiple testing appeared to have little effect on the kinds of writing deficiencies noted for individuals consistently failing the writing subtest. The writing samples of both first-timers and retakers were identified as being most deficient in Criterion 6 (Grammar and Usage), Criterion 7 (Correct Mechanics), followed by Criterion 4 (Detail and Elaboration).

- With the exception of Criterion 6 (Grammar and Usage), Criterion 7 (Correct Mechanics) and sixth-time takers, the proportion of examinees identified as having deficient skills tended to decline as the number of times the test was taken increased. However, this pattern reversed somewhat on the sixth attempt.

- The identification of deficiencies in Criterion 5 (Choose Effective Words) showed the most consistent improvement over times taken, with 41.8% of first-time examinees failing the writing subtest identified as deficient in this area while 28.6% of sixth-time examinees showed a deficiency.

Areas of Mathematics Deficiency

All examinees are provided with detailed feedback regarding their performance on the mathematics subtest. This feedback includes overall performance (a composite score) on the subtest as well as performance on each of the five mathematics domains that comprise the subtest.

TABLES 13, 14, 15 and 16 present the domain-level performance of first-time examinees by ethnic subgroup and by year as well as the performance of retakers by times taken. First-time examinee performance indicates that Domain 5 (Deductive Reasoning) appeared to be the most difficult for examinees while Domain 2 (Mathematical Relationships and Concepts) appeared to be the least difficult. In addition, minority examinees, in particular Blacks and Hispanics, had lower mean scores overall and in individual mathematics domains than majority examinees.

Retaker results indicate that performance on individual mathematics domains tended to improve as times taken increased; that is, first-time examinees who failed the mathematics subtest tended to experience improved performance on the domain level in subsequent administrations, particularly through the first few retake attempts.

TABLE 13 presents the mean domain scores of CONNCEPT examinees by times taken, the mean subtest scores of examinees passing and failing the subtest by times taken as well as overall subtest means by times taken.

TABLE 13

MEAN SCORES OF CONNCEPT EXAMINEES BY TIMES TAKEN

Times Taken	No. of Examinees	Mathematics Domains					Math Passes	Math Fails	Overall Means
		No. 1	No. 2	No. 3	No. 4	No. 5			
1	7,769	81.0	84.0	81.8	79.6	70.6	86.6	55.2	81.0
2	387	67.6	73.2	69.7	68.1	56.5	88.5	62.8	84.0
3	139	66.1	73.0	69.8	69.0	53.4	86.3	61.2	81.8
4	47	72.0	74.2	71.4	70.3	58.1	84.0	59.3	79.6
5	24	70.9	70.5	64.9	70.2	53.9	85.8	46.8	70.6

Mathematics Domains

1. Number Sense
2. Mathematical relationships and concepts
3. Application of mathematical understandings to the solution of problems
4. Measurement relationships and principles
5. Deductive reasoning

Note: For further details about the mathematics domains, refer to the CONNCEPT Study Guide for Mathematics.

Highlights of TABLE 13:

- In general, mean domain scores for first-timers were substantially higher than those for retakers, with declines most notably in Domain 5 (Deductive Reasoning).

- Except for CONNCEPT examinees taking the CONNCEPT for the fifth time, Domain 2 (Mathematical Relationships) and Domain 3 (Concepts and Mathematical Applications) presented the least difficulty for examinees. Domain 5 (Deductive Reasoning) presented the most difficulty for all examinees, followed by Domain 1 (Number Sense) for second and third-timers.

- There was a decline in mean scores as the number of times taken increased. However, mean scores increased with the fourth attempt, particularly in Domain 1 (Number Sense) suggesting that long-term remediation may be required for enhanced performance in some areas of math.

- Overall, there is a substantial discrepancy between mean scores for those examinees passing and those failing the mathematics subtest, with the widest discrepancy noted on Domain 1 (Number Sense), followed by Domain 5 (Deductive Reasoning).

- Individuals passing the mathematics subtest experienced most difficulty with Domain 5 (Deductive Reasoning), followed by Domain 4 (Measurement Relationships and Principles). Like first-time examinees, examinees failing the subtest experienced most difficulty with Domain 5 (Deductive Reasoning). They also had difficulty with Domain 1 (Number Sense).

- All examinees experienced least difficulty with Domain 2 (Mathematical Relationships and Concepts).

TABLE 14 presents significant (*) and nonsignificant (-) improvements in scores across pairs of administrations for people retaking the CONNCEPT; for example, Passes, Column 2, indicates that people who took the CONNCEPT a second time and passed showed significant improvement in scores in every domain over the first time they took the exam. Fails, Column 2, indicates that people taking the CONNCEPt a second time and failed showed significant improvement in four of the five domains over the first time they took the exam.

TABLE 14

CHANGES IN THE MEAN MATHEMATICS DOMAIN SCORES OF RETAKERS BY TIMES RETAKEN

	Times Retaken							
	Passes				Fails			
Domain	2	3	4	5	2	3	4	5
1	*	*	*	*	*	*	*	-
2	*	*	*	*	-	-	-	-
3	*	*	*	-	*	-	-	-
4	*	*	*	-	*	*	-	-
5	*	*	*	*	*	-	-	-

*Indicates changes in scores at the 0.05 level of significance (a greater than 95% chance that the scores recorded represent significant change).

Mathematics Domains

1. Number Sense
2. Mathematical relationships and concepts
3. Application of mathematical understandings to the solution of problems
4. Measurement relationships and principles
5. Deductive reasoning

Highlights of Table 14:

- As expected, examinees passing the mathematics subtest recorded a greater quantity of significant score improvement than examinees failing the CONNCEPT.
- Changes in scores declined in significance as the number of times taken increased, with fifth-time takers recording the least significant changes in scores whether they passed or failed the subtest.
- Candidates failing the CONNCEPT showed greatest improvement on Domain 1 (Number Sense) and Domain 4 (Measurement Relationships) over multiple attempts.

- The performance of examinees passing the subtest tended to improve in Domain 1 (Number Sense) and Domain 2 (Mathematical Relationships) and decline in Domain 3 (Mathematical Applications) and Domain 4 (Measurement Relationships). The performance of examinees failing the subtest improved consistently only on Domain 1 (Number Sense) while it declined on Domain 3 (Mathematical Applications) and Domain 4 (Measurement Relationships).

TABLE 15 presents overall mean mathematics scores by year and by mathematics domains.

TABLE 15

MATHEMATICS MEAN SCORES BY DOMAIN AND BY YEAR

Year of Administration	No. of Examinees	Mathematics Domains				
		1	2	3	4	5
YEAR 1	1,020	78.6	84.2	77.3	73.5	67.0
YEAR 2	1,127	81.4	85.8	80.3	77.3	69.3
YEAR 3	2,550	79.8	84.6	82.5	81.2	70.3
YEAR 4	3,072	82.6	82.6	83.3	81.1	72.6
TOTAL	7,769	81.0	83.9	81.8	79.6	70.6

Mathematics Domains

1. Number Sense
2. Mathematical relationships and concepts
3. Application of mathematical understandings to the solution of problems
4. Measurement relationships and principles
5. Deductive reasoning

Highlights of TABLE 15:

- Small increases in domain performance were noted over the four-year period, with the greatest increase (7.6%) noted in Domain 4 (Measurement Relationships and Principles), followed by 6.0% in Domain 3 (Application of Mathematical Understandings), 5.6% in Domain 5 (Deductive Reasoning) and 4.0% in Domain 1 (Number Sense).

- Until Year 4, Domain 2 (Mathematical Relationships and Concepts) remained the mathematics domain on which examinees scored highest. In Year 4, scores on this domain declined very slightly.

- Although mean scores increased on Domain 5 (Deductive Reasoning), it remained the most difficult domain for examinees throughout the four-year period, with the lowest mean scores.

Table 16 presents performance on the mathematics domains by ethnic subgroup. Due to the small numbers of minority group candidates, interpretations should be made with caution. In addition, note that TABLE 16 reflects how examinees reported their ethnic status on their first attempt.

TABLE 16

EXAMINEE PERFORMANCE ON THE MATHEMATICS SUBTEST
BY ETHNIC SUBGROUP BY MATHEMATICS DOMAIN

Ethnic Subgroups	No. of Examinees	Mathematics Domains 1	2	3	4	5	Overall Means
Am. Indian	21	80.0	83.9	77.7	79.8	66.9	79.0
Asian American	48	82.4	83.0	82.1	83.0	65.1	80.4
Black	316	69.1	70.6	73.2	68.4	57.9	69.1
Hispanic	215	65.3	70.9	70.5	73.1	56.4	68.3
White	7,101	82.0	85.0	82.5	80.3	71.7	81.6

Note: The maximum score on the mathematics subtest is 100.

Mathematics Domains

1. Number Sense
2. Mathematical relationships and concepts
3. Application of mathematical understandings to the solution of problems
4. Measurement relationships and principles
5. Deductive reasoning

Highlights of TABLE 16:

- With the exception of Domain 1 (Number Sense) and Domain 4 (Measurement Relationships and Principles) for Asian American examinees, majority group candidates received higher mean domain scores than minority group examinees.

- All examinees, regardless of their ethnic background, performed poorest on Domain 5 (Deductive Reasoning). American Indian and White candidates performed best on Domain 2 (Mathematics Relationships and Concepts) while Asian American candidates performed equally well on Domain 2 (Mathematical Relationships and Concepts) and Domain 4 (Measurement Relationships and Principles). Black candidates performed best on Domain 3 (Application of Mathematical Understandings) while Hispanic candidates performed best on Domain 4 (Measurement, Relationships and Principles).

- Overall mean subtest scores indicate that majority mean scores exceeded those of minority group candidates, with White candidates receiving the highest overall mean, followed by American Indian, Asian American, Black and Hispanic candidates.

Policy Implications

Results of the writing subtest indicate that pass rates of the writing subtest consistently increased over the four-year period. These findings suggest greater familiarity with the requirements of the subtest as well as the positive impact of preparation and remediation.

In general, Cirterion 3 (Present Ideas in an Organized Fashion), Criterion 4 (Include Sufficient Detail and Elaboration to Statement), Criterion 6 (Employ Correct Grammar and Usage) and Criterion 7 (Use Correct Mechanics) were more difficult to remediate than deficiencies in the other analytic criteria. Sentence-level skills appeared to be most resistant to remediation. These results are supportive of research findings noted in the literature.

Mean scores on the mathematics subtest improved slightly over the four-year period, with the greatest mean increases noted in Domain 3 (Application of Mathematical Understandings), Domain 4 (Measurement Relationships and Principles) and Domain 5 (Deductive Reasoning). In general, mean math scores showed improvement with the number of times the test was taken, suggesting again the positive effect of remediation on examinee performance.

Finally, in spite of the substantial discrepancy between the performance of minority and majority examinees, both the performance of retakers and overall subtest performance over time are encouraging. Tables provided in this and the following section of the report should provide helpful details regarding the deficits of examinees.

ANALYSIS 2: IMPACT OF CONNCEPT ON TEACHER EDUCATION PROGRAMS

The CONNCEPT is a state-wide assessment requirement for formal admittance to teacher education programs at Connecticut institutions of higher education. In an attempt to gauge the nature of the impact of CONNCEPT on both teacher education programs and teacher candidates, Analysis 2 addresses the following questions:

1. What were the sources of CONNCEPT examinees over the four years of the program?

2. Did the characteristics of teacher education candidates change over the four-year period?

2. Did the performance of teacher education candidates change?

TABLE 17 shows the proportion of examinees applying to teacher education programs versus those applying for teacher certification. TABLE 18 provides a profile of teacher education candidates over four years, focusing on selected demographic variables. TABLE 19 provides pass rates of teacher education candidates by characteristics selected from TABLE 18.

TABLE 17 indicates that Connecticut universities (public and private) represent a major source of new Connecticut teachers. In fact, these universities provided approximately two-thirds of all CONNCEPT examinees over the four-year period. This finding reinforces the notion that the impact of the CONNCEPT on Connecticut universities substantially influences the supply of teachers in Connecticut and warrants further examination.

TABLE 18 indicates that although gender distribution of the teacher education candidate pool remained stable over the four-year period, Connecticut attracted an increasing number of older teacher education candidates as well as an increasing number of graduate students.

As TABLE 19 indicates, in general, pass rates consistently increased over four years in both public and private institutions, with private institutions slightly exceeding the overall pass rate of public institutions in the past two years. Pass rates improved with age and as educational level increased, suggesting that the candidate pool in these areas affected pass rates. Finally, the proportion of private college/university students meeting the CONNCEPT through CONNCEPT waivers exceeded the proportion of public college/university students meeting the requirement through taking the examination.

Source of CONNCEPT Examinees

TABLE 17 presents the number and proportion of CONNCEPT candidates produced by Connecticut universities versus all other sources over the four-year period.

TABLE 17

CONNCEPT EXAMINEES BY SOURCE BY YEAR

Source of Examinees	Year 1 No.	Year 1 %	Year 2 No.	Year 2 %	Year 3* No.	Year 3* %	Year 4 No.	Year 4 %	Overall No.	Overall %
IN-STATE UNIVERSITIES	972	95.3%	1,041	92.4%	1,483	58.2%	1,768	57.6%	5,264	67.8%
State Univs.	764	74.9%	772	68.5%	1,033	40.5%	1,166	38.0%	3,735	48.1%
Univ. of CT	107	10.5%	118	10.5%	155	6.1%	206	6.7%	586	7.5%
Private Univ.	101	9.9%	151	13.4%	295	11.6%	396	12.9%	943	12.1%
NON-STUDENTS**	48	4.7%	86	7.6%	1,067	41.8%	1,304	42.4%	2,505	32.2%
Total	1,020	100.0%	1,127	100.0%	2,550	100.0%	3,072	100.0%	7,769	100.0%

* Year 3 (1987-88) represents the first year of administration (effective May 1987) in which CONNCEPT became a requirement for all certification candidates--student and non-student candidates.

**"Non-Students" refers to Connecticut teacher certification candidates. These candidates include individuals with out-of-state credentials, as well as candidates whose Connecticut certification lapsed or was revoked as of May 1987.

Highlights of TABLE 17:

- In the first two years of CONNCEPT administrations, teacher education program candidates represented the majority of CONNCEPT examinees. In Year 1, 95.3% of all examinees were teacher education program candidates and in Year 2, 93.4% were in this category. The concentration of teacher education program candidates was due primarily to the legislative provision, effective June 1986, which obliged all teacher education program candidates to meet the CONNCEPT requirement.

- Year 3 was the first year the CONNCEPT became a requirement for all Connecticut certtification candidates and teacher education program candidates. As expected, in this year, the proportion of non-student xaminees grew substantially from 7.6% of the total pool in 1986-87 to 41.8% in 1987-88 and 42.4% in 1988-89.

- In spite of the increased participation of non-student candidates in the most recent two years of the CONNCEPT program, teacher education program candidates still represented more than two-thirds (67.8%) of the pool of candidates over the four-year period. Of the teacher education candidates, the following is important to note:

  - The greatest proportion of teacher education program candidates (48.1%) attended one of the four Connecticut state universities. With the inclusion of the University of Connecticut, Connecticut public university students increased to 55.6% of the total pool of teacher education candidates.

  - Although their numbers increased slightly, the proportion of examinees from private institutions of higher education remained essentially stable while the proportion of examinees from public institutions declined steadily. This decline was due primarily to the large influx of "non-students" into the examinee pool.

Characteristics of Teacher Education Program Candidates

TABLE 18 presents the proportion of individuals in the categories of characteristics given. Note that proportions are based on information provided on CONNCEPT registration forms. Therefore, only individuals identifying the institution with which they were associated are included. In addition, note that graduates identifying their alma mater as the institution they were attending are also included in this table.

TABLE 18

CHARACTERISTICS OF FIRST-TIME EXAMINEES BY CONNECTICUT INSTITUTION OF HIGHER EDUCATION

	Year 1		Year 2		Year 3		Year 4		Overall	
Characteristics	Publ.	Priv.	Publ.	Priv.	Publ.	Priv.	Publ.	Priv.	Publ.	Priv.
AGE										
18 - 29	89.5%	91.1%	77.7%	72.9%	65.4%	54.2%	63.7%	56.1%	72.2%	62.0%
30 and above	10.5%	8.9%	22.3%	27.2%	34.6%	45.8%	36.3%	43.9%	27.9%	38.0%
GENDER										
Male	15.8%	6.9%	16.2%	13.3%	19.9%	18.6%	17.9%	16.0%	17.7%	15.4%
Female	84.2%	93.1%	83.8%	86.8%	80.0%	81.4%	82.1%	84.1%	82.3%	84.6%
GRADE PT. AVE.										
below 2.00	5.7%	2.1%	4.7%	0.0%	3.0%	0.8%	1.6%	0.3%	3.4%	0.6%
2.00 - 2.99	56.4%	53.2%	53.3%	38.8%	42.8%	29.0%	48.6%	37.7%	49.5%	36.8%
3.00 - 3.99	36.9%	44.7%	39.4%	55.2%	50.0%	64.3%	48.2%	59.0%	44.7%	58.5%
4.00 & above	1.0%	-	2.6%	6.0%	4.2%	6.0%	1.7%	3.0%	2.4%	4.1%
YEAR IN SCH.										
Freshman	10.2%	10.0%	4.5%	2.0%	4.8%	1.5%	9.0%	6.2%	7.1%	4.4%
Sophomore	35.6%	31.0%	21.6%	15.4%	23.1%	13.8%	27.2%	10.9%	26.6%	14.9%
Junior	44.2%	50.0%	33.8%	26.2%	26.2%	11.9%	19.7%	11.2%	29.6%	18.6%
Senior	3.5%	4.0%	15.5%	12.8%	8.1%	16.4%	19.2%	32.4%	12.1%	20.7%
Graduate Stud.	6.6%	5.0%	24.6%	43.6%	37.9%	56.3%	25.0%	39.4%	24.6%	41.4%
HIGH SCHOOL										
Public	83.1%	76.8%	82.8%	77.0%	81.3%	72.8%	82.1%	75.5%	82.2%	75.0%
Parochial	12.4%	14.1%	11.7%	13.5%	13.1%	18.0%	12.7%	16.9%	12.5%	16.4%
Private	4.5%	9.1%	5.4%	9.5%	5.6%	9.2%	5.3%	7.7%	5.2%	8.6%

Highlights of TABLE 18:

- The number of older examinees consistently increased over the four-year period, with the highest percentage of older examinees noted in Year 4 for public (36.3%) and Year 3 for private institutions (45.8%). Public institutions in Year 4 accounted for 508 of 681 older students (i.e., 30

years and older) or 28.3% of the total Year 4 student examinee pool of 1,793 responding to this item. This compares with 14.4% of the pool in the first two years of the program.

- Grade Point Averages (GPA's) improved across the four years in both public and private institutions, with the greatest percentage of examinees reporting GPA's of 3.00 - 3.99 in Year 3 (50.0% and 64.3% for public and private institutions, respectively). Again, in Year 3, the public institutions accounted for 613 (76.6%) of 800 examinees with a GPA of 3.00 or better, or 43.9% of the total Year 3 student examinee pool of 1,397. This proportion compares with 35.0% of the examinee pool in the first two years reporting a GPA of 3.00 or better.

- In general, the proportion of graduate student candidates increased substantially in both public and private institutions, with the percentage of graduate students peaking in Year 3. In that year, 56.3% of all student examinees attending private institutions were graduate students while 37.9% of all examinees attending public institutions were graduate students. However, of the 578 graduate students attending Connecticut institutions in Year 3, only 151 or 26.2% were from private Connecticut institutions. In addition, in Year 3, graduate students represented 41.4% of the total student pool responding to this item, compared with 17.3% in the first two years.

- The proportion of students reporting GPA's of 3.00 or better declined slightly in Year 4, from 54.2% for public institutions and 70.3% for private institutions in Year 3 to 49.9% and 62.0%, respectively, in Year 4. In addition, the proportion of students identifying themselves as graduate students declined somewhat in Year 4, from 37.9% for public institutions and 56.3% for private institutions in Year 3 to 25.0% and 39.4%, respectively in Year 4.

- As might be expected, the vast majority of university examinees attended public high schools. However, a slight decline in the number of public high school graduates was noted over the four-year period with a slight increase in parochial and private school graduates.

- Over the four-year period, the general characteristics of teacher education program candidates were as follows:

  - The majority of examinees were under age 29. However, 38.0% of all private university examinees and 27.9% of all public university examinees were 30 years or older.

  - The majority of all examinees were female (82.3% at public institutions and 84.6% at private institutions).

- The majority of all private school examinees had GPA's of 3.00 to 3.99 (58.5%), followed by GPA's of 2.00 to 2.99 (36.5%). The majority of all public university examinees had GPA's of 2.00 to 2.99 (49.5%), followed by 3.00 to 3.99 (44.7%).

- The greatest proportion of all private institution examinees were graduate students (41.4%), while the greatest proportion of examinees from public institutions were sophomores (26.6%) and juniors (29.6%). Overall, for both public and private institutions, graduate students and juniors represented the greatest proportion of examinees (27.5% and 27.6%, respectively).

- Finally, the vast majority of examinees graduated from public high schools (82.2% of those at public universities and 75.0% of those at private universities).

Performance of Teacher Education Program Candidates

TABLE 19 presents the proportion of individuals in selected categories who passed the CONNCEPT. The following proportions were based on information provided on CONNCEPT registration forms. Only individuals identifying their institution are included. In addition, graduates identifying their alma mater as the institution attending are included in this table.

TABLE 19

PERFORMANCE OF FIRST-TIME EXAMINEES IN SELECTED CATEGORIES BY FOUR-YEAR INSTITUTION OF HIGHER EDUCATION BY YEAR

	---Year 1---		---Year 2---		---Year 3---		---Year 4---	
Categories*	Publ.	Priv.	Publ.	Priv.	Publ.	Priv.	Publ.	Priv.
MEETING CONNCEPT REQUIREMENT	56.3%	51.5%	59.0%	70.2%	77.3%	83.1%	77.8%	84.7%
Waivers**	***	***	***	***	35.3%	50.1%	36.0%	50.9%
CONNCEPT****	56.3%	51.5%	59.0%	70.2%	42.0%	33.0%	41.8%	33.9%
PASSING CONNCEPT*****	56.3%	51.5%	59.0%	70.2%	65.0%	66.1%	65.4%	68.9%
Mathematics	78.2%	68.3%	81.6%	82.1%	83.1%	79.7%	82.7%	82.1%
Reading	87.3%	89.1%	97.1%	96.7%	90.6%	89.2%	95.1%	93.7%
Writing	71.9%	74.3%	69.1%	80.1%	75.6%	77.0%	75.7%	80.8%
AGE								
18 - 29	54.3%	50.0%	55.3%	66.4%	61.2%	58.8%	61.6%	67.0%
30 and above	74.4%	66.7%	71.4%	80.5%	72.4%	74.8%	72.6%	71.7%
YEAR IN SCH.								
Freshman	47.1%	50.0%	60.0%	100.0%	48.2%	75.0%	56.3%	47.6%
Sophomore	53.3%	51.6%	51.3%	69.6%	57.3%	48.7%	59.8%	59.5%
Junior	56.8%	48.0%	52.5%	56.4%	58.8%	62.5%	56.9%	52.6%
Senior	63.3%	100.0%	59.1%	84.2%	64.8%	59.1%	72.9%	78.2%
Graduate Stud.	76.8%	60.0%	72.5%	72.3%	75.2%	72.2%	73.8%	71.6%

* Due to self-selection factors, pass rates may vary by various categories and should be interpreted with caution.

** Of those candidates seeking to meet the CONNCEPT requirement, the proportion receiving waivers.

*** Data unavailable.

**** Of those seeking to meet the CONNCEPT requirement, the proportion passing the examination.

***** Of those candidates taking the CONNCEPT, the proportion passing the exam.

Highlights of TABLE 19:

- Overall the proportion of candidates meeting the CONNCEPT requirement increased over the four-year period, with the proportion of candidates in private institutions meeting the CONNCEPT requirement (via CONNCEPT waivers or passing the examination) exceeding those in public institutions since Year 3.

- CONNCEPT pass rates and the number of CONNCEPT waivers granted increased consistently over the four-year period, particularly in Years 3 and 4. The following occurrences were particularly notable:

  - In Years 3 and 4, in public institutions, the proportion of candidates meeting the CONNCEPT requirement by passing the examination exceeded those meeting the requirement via the waivers by 6.7 and 5.8 percentage points, respectively.

  - In private institutions, the proportion of candidates meeting the requirement via the waiver provisions exceeded the proportion meeting the requirement by passing the examination by approximately 17.0 percentage points in Years 3 and 4.

  - In Year 4, waivers granted increased over those granted in Year 3 at a rate of 110% for public institutions and more than 130% for private institutions.

- Pass rates on individual subtests were mixed:

  - Pass rates of public university candidates slightly exceeded those of private university candidates in mathematics and reading, with the greatest disparity (3.4%) noted in mathematics in Year 3.

  - The performance of private university candidates exceeded those of public university candidates on the writing subtest, with the greatest disparity (11.0%) noted in Year 2.

- Older teacher education candidates (i.e., 30 years and older) performed better than their younger counterparts (age 18-29). However, pass rates of younger examinees improved over time, with the highest pass rates for younger examinees (61.6%--public, 67.0%--private), and the smallest discrepancy between older and younger examinees (11.0%--public, 4.7%--private) occurring in Year 4.

- Pass rates improved with the candidate's level of education, so that graduate students tended to perform better than juniors and sophomores. Pass rates by year-in-school reinforced the implications of pass rates by age; that is, older, more experienced students tended to perform better on the CONNCEPT that younger, less experienced candidates.

- Although pass rates improved as students attained higher levels of education, it is important to note that only three out of every four seniors and graduate students, at both public and private universities, pass the examination on the first attempt.

Policy Implications

In spite of an expected decline in the proportion of teacher education candidates, particularly in the most recent two years of the program, teacher education candidates represented more than two-thirds of all CONNCEPT examinees over the four-year period. This suggests that Connecticut institutions of higher education contribute substantially to the supply of new teachers in Connecticut. Furthermore, it suggests that these institutions have been substantially affected by the CONNCEPT requirement and that patterns existent in the registration and pass rates of these candidates will affect the characteristics of the supply pool.

Over the past four years, Connecticut universities attracted increasing numbers of older students--many as graduate students seeking admittance to teacher education programs. Overall, these older, more experienced students performed substantially better than their younger counterparts.

Both the number of CONNCEPT candidates and CONNCEPT pass rates increased over the four-year period. In addition, waiver recipients represented a major contingent (30.2%) of the teacher education candidate pool.

The increase in first-time pass rates and in CONNCEPT waivers strongly suggests that Connecticut is increasingly attracting highly qualified candidates to the teaching profession. In addition, the use and acceptance of CONNCEPT waivers indicate the value of the availability of these alternatives and suggests that valid alternatives to CONNCEPT may continue to be evaluated and utilized to attract highly qualified candidates.

ANALYSIS 3: RECRUITMENT EFFORTS OF INSTITUTIONS OF HIGHER EDUCATION

The Department of Higher Education recently reported that minority college enrollment rose steadily through the 1970's and 1980's in Connecticut state universities, with the proportion of minority students reaching 10.7% in 1988. However, with the proportion of minority public (elementary and secondary) students in Connecticut at 23.6%, there is a pressing need to recruit additional minority teachers to replenish and increase the current pool.

Section II of this report, and TABLES 5, 9, 11 and 16, deal with the performance of all minority candidates--both those seeking admittance to teacher education programs and non-students seeking Connecticut certification. As found in Analysis 2, Connecticut teacher education programs represent a major source of new teachers. Using the CONNCEPT data base, this section of the report addresses the following questions about minority teacher education program candidate recruitment efforts:

1. What were the sources of minority CONNCEPT examinees over the four years of the program?

2. How successful have institutions of higher education been in attracting minority students to teacher education programs?

3. How have minority candidates from teacher education programs performed on the CONNCEPT over the four-year period?

TABLES 20, 21, 22 and 23 present the proportion of minority teacher education program candidates versus minority non-students seeking certification, as well as the performance of minority teacher education candidates by CONNCEPT subtest and by institution.

As TABLE 20 indicates, overall, over the four-year period, most minority candidates took the CONNCEPT in order to gain admittance to a Connecticut teacher education program. In addition, more minority teacher education candidates sought admittance to the teacher education programs at a Connecticut state university than at any other Connecticut institution.

As TABLE 21 indicates, the minority teacher education candidate pool has increased since the first administration of the CONNCEPT in 1985, with the highest proportion recorded in 1987-88 (Year 3). However, in the past two years, the ethnic breakdown reported a greater proportion of the students at private institutions as minorities than the students at public institutions. TABLES 22 and 23 indicate that there is wide disparity between the performance of majority and minority teacher education candidates, mirroring the disparity evident between majority and minority pass rates of the entire pool of candidates (teacher education and otherwise).

Source of Minority Examinees

TABLE 20 presents the number and proportion of CONNCEPT examinees by ethnic group produced by Connecticut universities versus other sources.

TABLE 20

CONNCEPT EXAMINEES BY SOURCE BY ETHNIC SUBGROUP

Source of Examinees	Am. Indian No.	%	Asian Am. No.	%	Black No.	%	Hispanic No.	%	White No.	%	Overall No.	%
IN-STATE UNIVS.	16	0.2	27	0.4	167	2.2	103	1.3	4,966	64.5	5,481	68.5
State Univs.	11	0.1	18	0.2	90	1.2	55	0.7	3,592	46.6	3,968	48.9
Univ. of CT	2	0.0	2	0.0	14	0.2	20	0.3	542	7.0	580	7.5
Priv. Univs.	3	0.0	7	0.1	63	0.8	28	0.4	832	10.8	933	12.1
NON-STUDENT CAND.	5	0.1	21	0.3	149	1.9	112	1.5	2,135	27.7	2,220	31.5
TOTAL	21	0.3	48	0.6	316	4.1	215	2.8	7,101	92.2	7,701	100.0*

*A total of 68 examinees did not respond to the item requesting ethnic status. Note that the non-responses may have had some effect on the distribution of candidates across ethnic groups.

Highlights of TABLE 20:

- Overall, over the four-year period, minority examinees represented 7.8% (600 examinees) of all CONNCEPT examinees, with 4.7% (313 examinees) seeking admittance to Connecticut teacher education programs and 3.7% (287 examinees) seeking Connecticut certification.

- Of all candidates, 2.8% were minority candidates seeking admittance to teacher education programs at the five state universities including the University of Connecticut. Minority students attending private Connecticut universities represented 1.3% of the total pool. Therefore, Connecticut state universities attracted more minority students than Connecticut private institutions.

- Blacks (2.2%) and Hispanics (1.3%) represented the greatest proportion of minority teacher education candidates. In addition, these candidates represented the greatest proportion of non-student minorities seeking Connecticut certification.

- The vast majority of student and non-student candidates were White. Some 92.2% of all CONNCEPT candidates were White, with 64.5% of these candidates seeking admittance to teacher education programs and 27.7% seeking a Connecticut certificate.

Recruitment of Minority Examinees

TABLE 21 presents the proportion of teacher education candidates of various ethnic groups by public and private institutions of higher education and by year.

TABLE 21

TEACHER EDUCATION CANDIDATES BY INSTITUTION BY ETHNIC GROUP

	---Year 1---		---Year 2---		---Year 3---		---Year 4---		--Overall--	
Ethnic Status	Publ.	Priv.	Publ.	Priv.	Publ.	Priv.	Publ.	Priv.	Publ.	Priv.
MINORITY CAND.	3.4%	7.9%	3.6%	7.3%	6.2%	13.7%	5.7%	10.9%	4.9%	10.8%
Am. Indian	0.4%	1.0%	0.2%	-	0.3%	0.7%	0.3%	-	0.3%	0.3%
Asian Am.	0.5%	-	0.2%	0.7%	0.8%	1.0%	0.4%	0.8%	0.5%	0.8%
Black	1.3%	6.9%	2.1%	4.6%	2.8%	8.6%	3.0%	6.2%	2.4%	6.8%
Hispanic	1.2%	-	1.1%	2.0%	2.3%	3.4%	2.0%	3.9%	1.7%	3.0%
MAJORITY CAND.	96.8%	92.1%	96.3%	92.7%	93.8%	86.3%	94.4%	89.2%	95.1%	89.2%

Note: It is important to note that these proportions are significantly influenced by overall numbers in teacher education programs at public and private institutions. Therefore, these proportions may not reflect the actual numbers in the institutions.

Highlights of TABLE 21:

- The proportion and number of minority teacher education candidates tended to increase over the four-year period, with the greatest percentages noted in Years 3 and 4.

- The greatest proportion of minority teacher education candidates were Black, followed by Hispanic, Asian American and American Indian candidates.

- Over the four-year period, a greater proportion of the teacher education candidates at private institutions were minority students (10.8%) than at public institutions (4.9%), with the greatest increase in percentage of minority students noted in Year 3 and the proportionate distribution remaining stable into Year 4. However, with public institutions producing the vast majority of teacher education candidates, these institutions had larger numbers of minority students than private institutions.

- White candidates represented the overwhelming majority in each year, with the greatest proportion noted in Years 1 (96.8%--public, 92.1%--private) and 2 (96.3%--public, 92.7%--private) for both public and private institutions.

Performance of Minority Teacher Education Program Candidates

TABLE 22 presents performance of minority and majority group teacher education candidates on each subtest of the CONNCEPT.

TABLE 22

PERFORMANCE OF TEACHER EDUCATION CANDIDATES BY SUBTEST
BY ETHNIC GROUP

		------FIRST-TIME PASSES-------				-------LAST-TIME PASSES------			
Ethnic Group	No.*	Math	Rdg.	Wrtg.	CONNCEPT	Math	Rdg.	Wrtg.	CONNCEPT
Am Indian	16	81.3%	81.3%	81.3%	75.0%	81.3%	87.5%	81.3%	81.3%
Asian Am.	27	77.8%	66.7%	55.6%	37.0%	92.6%	81.5%	70.4%	66.7%
Black	167	53.9%	79.6%	62.3%	37.7%	62.3%	86.8%	70.1%	50.9%
Hispanic	103	63.1%	82.5%	59.2%	39.8%	71.8%	88.4%	69.9%	57.3%
White	4,966	82.8%	93.5%	75.3%	64.4%	90.5%	96.8%	86.8%	81.9%
TOTAL	5,279	81.5%	92.7%	74.5%	63.0%	89.2%	96.2%	85.8%	80.3%

*Number of Examinees

Highlights of TABLE 22:

- Overall last-time pass rates were substantially higher than overall first-time pass rates. Improved overall last-time pass rates were probably due to remediation taking place before the exam was retaken. Thus, last-time pass rates on individual subtests were higher than pass rates based on the first attempt.

- The writing subtest, identified as the most difficult subtest overall, proved to be the most difficult subtest for all students, except for American Indian and Black examinees.

- Based on first-time pass rates the following was evident:

  - Asian Americans were identified as having the lowest first-time pass rates (55.6%) on the writing subtest followed by Hispanics (59.2%), Blacks (62.3%, Whites (75.3%) and American Indians (81.3%).

  - For Black examinees, mathematics (53.9%) proved to be the most difficult subtest to pass, followed by writing (62.3%)

  - Black examinees scored lower than all other examinees on the mathematics subtest, while Asian Americans scored lower than all other examinees on the reading subtest.

- American Indian, Asian American, Black and White teacher education candidates passed the CONNCEPT at about the same rate as all examinees in those ethnic group categories on their last attempt.

  - Hispanic teacher education candidates passed the CONNCEPT at a higher rate than all Hispanic examinees (i.e., including non-students).

  - As TABLE 5 indicated, 81.0% of all American Indians, 68.8% of all Asian Americans, 52.5% of all Blacks and 82.6% of all Whites passed the CONNCEPT on their last attempt. Correspondingly, for teacher education candidates, 81.5% of all American Indians, 66.7% of all Asian American, 50.9% of all Blacks and 81.9% of all Whites passed the CONNCEPT.

  - Hispanic teacher education candidates passed the examination at a rate of 57.3% on their last attempt, while the last attempt pass rate for all Hispanic examinees was 43.7%.

TABLE 23 presents performance of teacher education candidates by ethnic group and by institution.

TABLE 23

LAST-TIME PASS RATES OF TEACHER EDUCATION CANDIDATES
BY INSTITUTION AND BY ETHNIC GROUP

University	Am. Indian		Asian Am.		Black		Hispanic		White	
	No.	%	No.	%	No.	%	No.	%	No.	%
PUBLIC U.	13	84.6%	20	65.0%	104	48.1%	75	52.0%	4,134	81.4%
CCSU	*3	66.7	*8	62.5	33	54.6	22	54.6	1,243	80.7
ECSU	*3	100.0	*2	100.0	*4	75.0	*9	44.4	495	82.4
SCSU	*3	66.7	*5	40.0	49	36.7	18	33.3	1,483	78.9
UCONN	*2	100.0	*2	100.0	14	57.1	20	60.0	542	88.9
WCSU	*1	100.0	*3	66.7	*3	66.7	*5	100.0	313	81.5
COMM. COL.	*1	100.0	-	-	*1	100.0	*1	0.0	58	79.3
PRIVATE U.	*3	66.7	*7	71.4	63	55.6	28	71.4	832	84.4
TOTAL	16	81.3	27	66.7	167	50.9	103	57.3	4,966	81.9

*Due to the small numbers of minority candidates, American Indian and Asian American candidates in particular, interpretations should be made with caution.

Highlights of TABLE 23:

- Of all the public institutions examined, the University of Connecticut (UCONN) had the largest percentage of minority teacher education candidates (6.6%), followed by Central Connecticut State University (CCSU) at 5.0%, Southern Connecticut State University (SCSU) at 4.8%, Western Connecticut State University (WCSU) at 3.7% and Eastern Connecticut State University (ECSU) at 3.5%.**

**Note that these proportions are significantly influenced by the overall number of candidates in teacher education programs. Therefore, they may not reflect actual numbers in the institutions in question.

- In general, CONNCEPT candidates from private institutions performed slightly better than candidates from public institutions. However, as noted previously, public institutions produced the vast majority of teacher education candidates.

- Overall, minorities in Connecticut four-year institutions, whether attending public or private institutions, performed more poorly than majority candidates. At the same time, the pass rate for minorities at private universities exceeded the pass rate for those attending public universities.

- Of all minority candidates at public universities, Blacks had the most difficulty passing the examination (48.1%), followed by Hispanics (52.0%), Asian Americans (65.0%) and American Indians 84.6%.

Policy Implications

It was noted in the previous section that Connecticut colleges and universities accounted for the majority of CONNCEPT candidates (67.8%). These institutions also accounted for most minority CONNCEPT candidates (4.1% of 7.8% minority examinees) over the four-year period. Although the sum of these percentages compares favorably with the percentage of practicing minority public school teachers (5.9% in 1988-89) in Connecticut, it is insufficient to meet the need for minority teachers in Connecticut and to close the gap between the proportion of public school minority teachers (5.9%) and students (23.6%) in 1988-89.

The general increase of minority teacher education candidates, particularly over the first three years of the CONNCEPT program (from 3.4%--public and 7.9%--private in 1985-86 to 6.2%--public and 13.7%--private in 1987-88), indicate that Connecticut institutions of higher education experienced some success in recruiting minority teacher education candidates. These institutions are encouraged to continue their efforts and identify new strategies to attract minority candidates to teacher education programs.

The differential between minority and majority pass rates remained substantial, with particularly notable disparaties in the mathematics and writing pass rates for Blacks and Hispanics. These disproportionate pass rates, together with the limited success universities experienced in recruiting indicate the critical status of minority teacher education in Connecticut.

The differential pass rates of minority and majority student teacher candidates indicate the need for additional intensive preparation and support programs for minority students in particular. Connecticut universities currently have the foundations of CONNCEPT preparation programs in place; all public universities provide some measure of support through programs developed specifically for CONNCEPT examinees or through remedial centers on university campuses. However, existing support appears to be inadequate to meet the needs of minority students. If Connecticut colleges and universities are to build on their success in recruitment, teacher education program candidates must be informed of deficit skill areas prior to taking CONNCEPT for the first time. In addition, support programs must be expanded and intensified to assist those students admitted to Connecticut colleges.

The CSDE has attempted to provide prospective teacher education candidates with assistance in identifying and remediating deficit skills in two ways: 1) developing two study guides, The CONNCEPT Study Guide for Writing and Reading and The CONNCEPT Study Guide for Mathematics; and 2) providing detailed reports of deficiencies noted in examinee performance in the two most difficult CONNCEPT subtests--writing and mathematics. While demand for the study guides has been encouraging (approximately 10,000 copies of each guide have been disseminated since December 1987), institutions are encouraged to develop additional strategies for remediation, particularly for those students who have been admitted to Connecticut universities with fundamental deficits in skills. In addition, institutions of higher education are encouraged to use the CONNCEPT diagnostic information provided to assist examinees in their remediation efforts.

ANALYSIS 4: IMPACT OF THE POLICY REQUIRING PASSING SCORES ON ALL SUBTESTS IN THE SAME ADMINISTRATION

The Connecticut General Statutes describe the standards for meeting the CONNCEPT requirement as follows: Candidates must "...achieve satisfactory scores on all components, in one administration, of the state reading, writing and mathematics competency examination...." As a result, CONNCEPT candidates fall into four categories:

1. Candidates who pass all subtests on the first attempt;

2. Candidates who eventually pass all subtests in the same administration after multiple attempts;

3. Candidates who pass all subtests, but in different administrations; hence, fail to pass the CONNCEPT; and

4. Candidates who fail to pass each subtest in one or multiple administrations.

This report has provided outcomes of the performance of those candidates in the first two categories. The final section of this report will further examine the performance of candidates in Category 2 and those in Category 4 as described above. This section will focus on candidates in Category 3 and will address the following questions:

1. How many candidates were affected by the policy requiring passing scores on all subtests in the same administration?

2. How did these candidates perform in their most recent attempt to pass the examination?

TABLES 24 and 25 provide a profile of those candidates failing to pass all subtests in the same administration as well as the most recent performance of candidates in this category.

TABLES 25 and 26 indicate that of all CONNCEPT examinees over the four-year period, 1.3% passed all subtests in alternate administrations. These candidates represent 0.8% of all candidates attempting to meet the CONNCEPT requirement*. Of all examinees failing on their first attempt, 14.7% (9.3% of all CONNCEPT requirement candidates) eventually passed all subtests in the same administration.

*These candidates includes examinees and waiver recipients.

Profile of Examinees Affected by the Policy Requiring Passing Scores on all Subtests in the Same Administration

TABLE 24 presents the status of retaker candidates who may be affected by the policy requiring that all subtests be passed in the same administration.

TABLE 24

PROFILE OF RETAKER CANDIDATES POTENTIALLY AFFECTED BY THE POLICY REQUIRING PASSING SCORES ON ALL SUBTESTS IN THE SAME ADMINISTRATION

Status	Number of Examinees	Percent of Examinees	Percent of CONNCEPT Requirement Candidates
Eventually Passed CONNCEPT	1,141	14.7%	9.3%
Passed Each Subtest In Alt. Admins.	99	1.3%	0.8%
Failed to Pass All Subtests	432	5.6%	3.5%
TOTAL	1,672	21.5%	13.7%

Highlights of TABLE 24:

- A total of 1,672 (21.5%) retook the CONNCEPT in an attempt to pass all subtests in a single administration. Of these, 154 (2.0%) took the examination three or more times.
- Of the 1,672 retakers, 68.2% of the total number of retakers (1,141 examinees) eventually passed, while 6.0% (99 examinees) passed all subtests in alternate administrations. The remainder, 25.8% (432 examinees) would not have passed CONNCEPT even if the current policy did not exist since they did not pass all subtests.
- Of all examinees, 14.7% (1,141) eventually passed all subtests in a single administration, 1.3% (99 examinees) passed all subtests in alternate administrations and 5.6% (432 examinees) have not yet passed all subtests.

Performance of Examinees Affected by the Policy

TABLE 25 presents the results of the most recent performance of CONNCEPT examinees passing each subtest in alternate administrations.

TABLE 25

MOST RECENT PERFORMANCE OF CANDIDATES PASSING ALL SUBTESTS WITHOUT PASSING THE CONNCEPT

Subtest Performance	Number of Examinees	Percent of Examinees	Percent of CONNCEPT Requirement* Candidates
Failed 3 subtests	2	0.0%	0.0%
Failed 2 subtests	9	0.1%	0.1%
Failed Mathematics	24	0.3%	0.2%
Failed Reading	5	0.1%	0.0%
Failed Writing	59	0.8%	0.5%
TOTAL	99	1.3%	0.8%

*These candidates include those seeking to meet the CONNCEPT requirement by passing the CONNCEPT and those seeking to do so by qualifying for a CONNCEPT waiver.

Highlights of TABLE 25:

- A total of 99 examinees or 1.3% of all examinees passed all subtests in different administrations; hence, they were unable to pass the CONNCEPT by the policy which requires the passing of all subtests in the same administration. These examinees represent 0.8% of all candidates attempting to meet the CONNCEPT requirement in the first 4 years.

- Most of the 99 examinees attempting to pass all subtests in the same administration failed writing (55 or 0.8%) in their most recent attempt. In addition, of the 99 examinees, five failed reading on their most recent attempt.

- Of the 99 examinees passing the subtests in alternate administrations, 11 (11.1%) failed more than one subtest.

TABLE 26 presents the ethnic status of CONNCEPT examinees passing all subtests in alternate administrations.

TABLE 26

ETHNIC STATUS OF CONNCEPT EXAMINEES PASSING ALL SUBTESTS IN ALTERNATE ADMINISTRATIONS

Ethnic Status	Number of Examinees	Percent of Examinees
Black	7	7.1%
Hispanic	4	4.0%
White	85	85.9%
No Ethnic Status	3	3.0%
TOTAL	99	100.0

Highlights of TABLE 26:

- o White candidates represented the vast majority of all examinees who passed the CONNCEPT in alternate administrations, at 85.9%, followed by Blacks 7.1% and Hispanic candidates 4.0%.

- o The policy affects the following proportions of examinees in their respective ethnic subgroups:

  - Black examinees passing all subtest in alternate administration represent 2.2% of all (316) Black examinees.

  - Hispanic examinees passing all subtests in alternate administrations represent 1.9% of all (215) Hispanic examinees.

  - White examinees passing all subtests in alternate administrations represent 1.2% of all (7,101) White examinees.

Policy Implications

Through March 1989, the policy underlying the statute requiring passing scores on all subtests in the same administration affected only 1.3% of all examinees

and less than 1.0% of all CONNCEPT requirement candidates--a very small proportion of the pool of candidates.

Examinees passing all subtests in different administrations also represented small proportions of their respective ethnic subgroups. In effect, if the policy were adjusted, the overall pass rates for Blacks, Hispanics and Whites would be increased as follows: by 2.2% for Blacks, 1.9% for Hispanics and 1.2% for Whites.

Based on these increases as well as the increased likelihood of falsely passing examinees as a result of changed policy, Connecticut would be better served to retain the current policy. The policy appears to be working well as a screening device and as an incentive for examinees to persist with remediation to upgrade deficient skills.

ANALYSIS 5: PERSISTENT RETAKERS AND CANDIDATES FAILING TO RETAKE THE CONNCEPT

In an attempt to further gauge the impact of the CONNCEPT on individual examinees, the CSDE conducted a survey of all candidates who retook the exam as well as those who failed to retake it after two or more opportunities. Of approximately 1,600 surveys distributed, 731 responses were received--a high return rate of approximately 45.7%. Survey responses will be used to respond to the following questions in this section of the report:

1. What are the career plans of retakers as well as candidates failing to retake the CONNCEPT?

2. How were candidates' career plans affected by the CONNCEPT?

3. How do candidates failing to retake the exam and retakers characterize the CONNCEPT?

Results of selected survey items are presented in TABLES 27 through 29. (Additional survey analyses will be conducted at a later date.)

Responses to the survey items indicate that regardless of whether or not respondents have retaken the CONNCEPT, their primary career goal is to enter the teaching profession in Connecticut. Of all the candidates responding, only 9.1% indicated that they intended to seek a career in another field. While most respondents indicated that CONNCEPT has not affected their career or academic plans, approximately one-third of those respondents who have not retaken the CONNCEPT (167 respondents) indicated that they have no plans of retaking the examination. Finally, while most respondents tended to describe the reading and writing subtests as important, most describe the reading and mathematics subtests as fair and correspondingly least difficult.

Career Plans of Retakers and Examinees Failing to Retake

TABLE 27 presents the career plans of CONNCEPT retakers and examinees failing to retake the exam.

TABLE 27

CAREER PLANS OF CONNCEPT RETAKERS AND EXAMINEES
WHO HAVE NOT RETAKEN THE CONNCEPT

	Times Taken						
Career Plans	1	2	3	4	5	6 or more	Total
CT Public Sch Tchr.	39.5%	69.1%	72.2%	70.8%	63.4%	72.7%	63.2%
CT Priv./Parochial School teacher	5.1%	1.8%	4.5%	2.1%	4.6%	9.1%	3.2%
Other CT Teacher (Pre-school, college)	7.0%	4.1%	2.3%	6.3%	13.6%	9.1%	4.9%
Out-Of-State Teacher	5.3%	6.7%	5.3%	6.3%	4.6%	9.1%	6.2%
School Administrator	3.2%	1.8%	0.0%	0.0%	4.6%	0.0%	1.7%
Other School Staff (Coach, social worker)	17.8%	6.1%	7.5%	4.2%	4.6%	0.0%	8.7%
Non-Education Field	15.9%	8.2%	5.3%	8.3%	4.6%	0.0%	9.1%
No Employment Plans	5.7%	2.3%	3.0%	2.1%	0.0%	0.0%	3.1%

Highlights of TABLE 27:

- Of the 714 candidates responding to this item, 68.1% indicated that they planned to become Connecticut public school teachers. An additional 8.7% selected support school staff positions (coach, social worker, psychologist, school nurse, guidance counselor) as career goals.

- Candidates who have not retaken CONNCEPT were least likely to select teaching in a Connecticut public school as a career goal (39.5%). In addition, they were most likely to select school support positions (17.8%) or fields outside of education as future careers (15.9%).

- Retakers were more likely to select teaching in a Connecticut public school as a career goal and less likely to select a field outside of education.

TABLE 28 presents the impact CONNCEPT has had on respondents' overall academic/career plans as well as on their plans to retake the CONNCEPT by the number of times the test has been taken. Note that Times Taken 1 describes those candidates who did not retake the CONNCEPT on the last two opportunities (through March 1989) available to them.

TABLE 28

THE EFFECT OF CONNCEPT ON ACADEMIC/CAREER PLANS
AND ON PLANS TO RETAKE THE CONNCEPT

	Times Taken						
Impact of CONNCEPT	1	2	3	4	5	6 or more	Total
Dropped Education Major	10.8%	2.9%	7.5%	8.3%	13.6%	0.0%	6.2%
Dropped Education Minor	0.6%	0.3%	1.5%	2.1%	0.0%	0.0%	0.7%
Dropped out of School	3.0%	0.6%	0.8%	0.0%	4.6%	0.0%	1.2%
Transferred to Different College	1.8%	0.6%	0.8%	0.0%	0.0%	0.0%	0.8%
Changed to Career Unrelated to Education	24.0%	5.2%	11.2%	10.4%	31.8%	0.0%	11.6%
Advised Against Retaking the CONNCEPT	3.6%	0.9%	0.0%	4.2%	4.6%	0.0%	1.6%
Will Not Retake CONNCEPT	33.5%	7.2%	7.5%	12.5%	22.7%	9.1%	14.1%
No Effect on Plans	52.1%	83.4%	70.2%	58.3%	45.5%	63.6%	70.7%

Highlights of TABLE 28:

- In general, the CONNCEPT had relatively little effect on certification candidates responding to the survey, with 70.7% indicating that the CONNCEPT had had no effect on their career/academic plans. Only 14.1% indicated that they would not retake the CONNCEPT and 11.6% indicated that as a result of CONNCEPT, they changed their career plans.

- CONNCEPT appears to have had the greatest impact on those individuals who refrained from retaking the CONNCEPT and those who took the CONNCEPT at least five times:

  - Of the those candidates who did not retake the examination, 10.8% indicated that they dropped education as a major, 24.0% indicated that they changed to a career unrelated to education and 33.5% indicated that they would not retake the CONNCEPT.

- Of the fifth-time takers, 13.6% indicated they dropped education as a major as a result of CONNCEPT, 31.8% changed to a career unrelated to education and 22.7% indicated that they would not retake the CONNCEPT.

- Of all the individuals responding to this item, fifth-time takers were least likely to indicate that the CONNCEPT had no effect on their career/academic plans (45.5%), followed by examinees who failed to retake the CONNCEPT (52.1%).

Opinions of Examinees Failing to Retake the CONNCEPT

TABLE 29 presents respondents' description of the CONNCEPT subtests by the number of times the test was taken. Note that, for this table, respondents were asked to respond to the subtests' importance, fairness and difficulty according to the following scale: 1 = strongly agree, 2 = somewhat agree, 3 = somewhat disagree, 4 = strongly disagree. For TABLE 29, the first two categories were collapsed into a response of "agree" and the last two into the category of "disagree". In addition, Times Taken 1 refers to those candidates who did not retake the CONNCEPT on the last two opportunities available to them.

TABLE 29

PROPORTION OF RESPONDENTS AGREEING WITH DESCRIPTIONS OF THE CONNCEPT BY THE NUMBER OF TIMES THE TEST WAS TAKEN

	Times Taken						
Subtest Description	1	2	3	4	5	6 or more	Total
MATHEMATICS							
Important	59.3%	70.2%	71.8%	56.5%	80.0%	40.0%	67.2%
Fair	45.8%	68.2%	60.0%	52.2%	47.4%	45.5%	59.5%
Difficult	67.6%	58.1%	55.9%	57.8%	57.9%	60.0%	59.8%
READING							
Important	80.4%	84.8%	85.5%	73.9%	100.0%	54.5%	83.2%
Fair	73.7%	84.4%	80.2%	69.6%	82.4%	100.0%	80.4%
Difficult	42.9%	28.1%	30.3%	30.4%	38.9%	30.0%	32.1%
WRITING							
Important	74.5%	83.6%	78.0%	63.0%	84.2%	40.0%	78.6%
Fair	52.3%	61.9%	47.9%	45.7%	44.4%	60.0%	55.6%
Difficult	69.2%	57.7%	61.7%	60.9%	57.9%	40.0%	60.9%

Highlights of TABLE 29:

- The reading subtest was regarded as important by most respondents, followed by the writing subtest, then the mathematics subtest. However, first timers who did not retake the examination as well as those examinees who took the examination five or more times were less likely to regard the subtests, particularly the mathematics and writing subtests, as important.

- More respondents were likely to regard the reading subtest as fairer than any other subtest. Here again, first-timers who did not retake the exam were less likely to regard the reading or mathematics subtests as fair. By contrast, except for two-time CONNCEPT examinees, approximately one-half of all respondents indicated that the writing subtest was fair.

- Responses to the level of difficulty of the subtests paralleled the pass rates which indicate that reading is the least difficult of the subtests, followed by mathematics and writing. However, as expected, examinees not retaking the examination were more likely to describe the subtests as difficult than other respondents.

- In general, responses to the difficulty of the test and the fairness of the test were similar. In both instances, reading tended to be the most favored subtest, followed by mathematics and writing. Not surprisingly, these responses were related to the indicated difficulty level of each subtest.

Policy Implications

It is interesting to note that even among those respondents failing to retake the CONNCEPT after two opportunities to do so, fully 39.5% indicated that they intend to continue to seek certification as Connecticut public school teachers. In addition, of the same group of respondents, 52.1% indicate that the CONNCEPT had no effect on their plans. Furthermore, of these respondents, 59.3% regard the mathematics subtest as important, while 80.4% and 74.5% regard the reading and writing subtests, respectively, as important.

Survey responses indicate that even among those candidates most likely to object to the use of the CONNCEPT as a screening device, more than 50% regard each of the subtests as important and a substantial proportion plan to enhance their skills sufficiently to meet the CONNCEPT requirement.

Analytic Writing Criteria (Categories)

1. State and stay on topic.
2. Address all specified parts of the writing assignment.
3. Present ideas in an organized fashion.
4. Include sufficient detail and elaboration to statement.
5. Choose effective words.
6. Employ correct grammar and usage.
7. Use correct mechanics (spelling, capitalization, punctuation, paragraph form, etc.).

Mathematics Domains

1. Number Sense
2. Mathematical relationships and concepts
3. Application of mathematical understandings to the solution of problems
4. Measurement relationships and principles
5. Deductive reasoning

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